The Resonator

Official Newsletter of The Fair Lawn (NJ) Amateur Radio Club

Volume 6, Number 1 www.FairLawnARC.org January 2021

From The President

Dear FLARC Family,
I would like to start by wishing each and every one of you, and your families, a very Happy, Healthy and Safe 2021. It was great to see many of you during our first virtual business meeting of the year.

Again, with our limitations, I am very optimistic of what 2021 will bring for us here at FLARC. January has started strong. As mentioned by our Vice President John W2JLH, we will participate in Winter Field Day.

Also, an excellent Kawfee Tawk with our guest, the CEO of Trans World Radio, our nets, an indoor VE testing session, and more. The commitment of staying together and staying active continues.

Plus, we are planning many other things to benefit our membership and at the same time, preparing ourselves for that moment when we can once again open our doors — when that time comes and the authorities feel it is safe for us to do so. We will be ready and anxious to get together and meet in person once again.

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New Member Profile

NAME: Ed McDermott **CALL: KD2TVZ**

What do you do/what did you do for a living?

I worked in Business Development for several financial institutions and financial services firms in the Eastern US. I am currently between positions and expect to be employed soon.

How did you get interested in ham radio?

I became interested in emergency prepping at the time the COVID-19 pandemic started earlier this year.

As part of the focus on self-sufficiency in a worst-case scenario, the idea of having a method of communicating in case nothing else was available was appealing. You Tube commentators pointed out that purchasing an inexpensive handheld radio and leaving it in a drawer would not be as useful as expected if the time comes to use it as a last resort. The key was to commit the time to get to know how to use it and to develop a network of contacts in order to be prepared for when all other communications fail. I was in Manhattan on 9/11 and remember how difficult communications were on that day.

What parts of the hobby most interest you?

Right now, the emergency communications aspect of ham radio is most appealing to me. I enjoy functions that allow me to "connect the dots" and help others.

How did you first find out about FLARC?
What are your impressions of the club?

A friend referred me to Lou Janicek N2CYY and Tom McCabe N2AXX who both mentioned FLARC as a good

Continued on page 15.

FLARC To Hold VE Testing On January 16th at NEW LOCATION

On January 16, 2021 Fair Lawn Amateur Radio Club will continue amateur radio test sessions on a trial basis. These sessions will be held indoors.

The location is at:

The Masonic Lodge
99 S Maple Avenue
Ridgewood, NJ

NOTE THAT THIS IS A NEW LOCATION!

Covid-19 related incidents will cancel testing.

Prior to Testing:

Send an email to wo2w@arrl.net requesting to book your spot. Pre-registration is REQUIRED.

Please Bring With You:

- **You MUST bring and WEAR personal PPE items including a face mask**
- 2 pens and 2 pencils. None will be provided to you due to possible virus transmission
- **Your FRN number, and (if licensed) a copy of your ham license or a valid CSCE (Certificate of Successful Completion Exam)**
- **A completed Form 605 (which will be sent to you ahead of your test session, along with your assigned test time.)**
- Additionally, the **$15.00 exam fee**. This is payable in cash (**exact amount is a must**)
- **3 copies of the CSCE form which will be sent to you ahead of your test session**

Additional scheduled testing dates are: February 13, 2021, March 13, 2021, and April 10, 2021.

FLARC is following government Covid-19 guidance closely and all events will adhere accordingly to the latest advice.

FLARC Announces Outdoor Hamfest For Saturday, April 24, 2021

The club has announced the creation of its first hamfest to be held at the Fair Lawn Recycling Center on Saddle River Road on Saturday, April 24, 2021 with a rain date of .

This replaces our annual Thanksgiving Friday auction which has been cancelled by the Covid-19 virus.

Details will follow but **please save the date** and **please volunteer** to make this a successful club event.

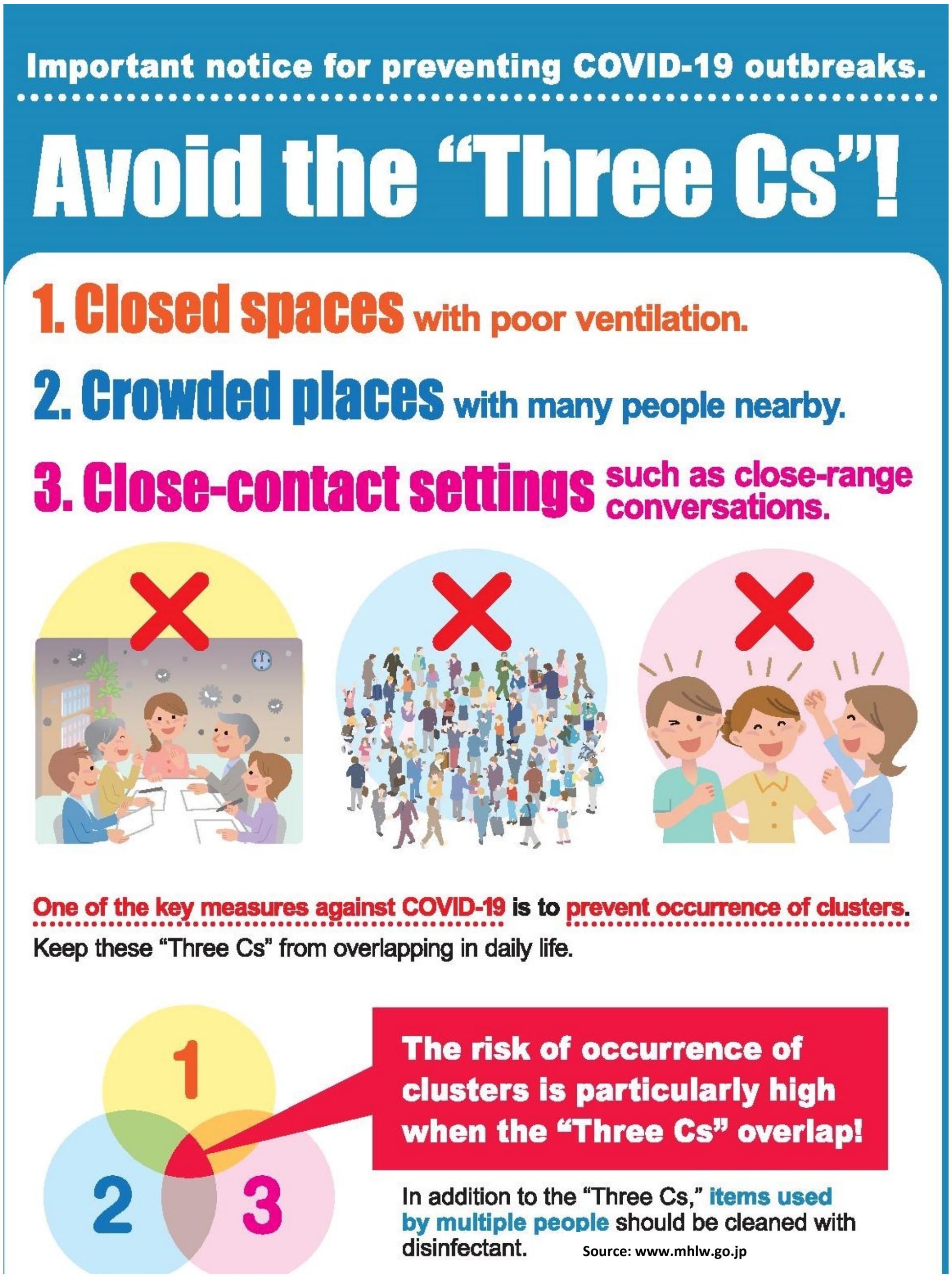
For questions please contact Gene WO2W at wo2w@arrl.net or Visit our website at www.FairLawnARC.org.

FLARC is following government Covid-19 guidance closely and all events will adhere accordingly to the latest advice.

Fellow FLARC Members,

As we all know, the coronavirus continues to be top of the news and that the club is closed until further notice. Out of an overabundance of caution and our care for your safety, all FLARC events are postponed until further notice due to COVID-19.

Check in on our nightly health and welfare net on the W2NPT repeater at 7:00 PM and let us know how you're doing. You may be isolated at this time but you are not alone. Stay safe!



Important notice for preventing COVID-19 outbreaks.

Avoid the "Three Cs"!

1. **Closed spaces** with poor ventilation.
2. **Crowded places** with many people nearby.
3. **Close-contact settings** such as close-range conversations.

One of the key measures against COVID-19 is to prevent occurrence of clusters.
Keep these "Three Cs" from overlapping in daily life.

The risk of occurrence of clusters is particularly high when the "Three Cs" overlap!

In addition to the "Three Cs," items used by multiple people should be cleaned with disinfectant.

Source: www.mhlw.go.jp

Nomar NP4H -- October 2020

The Club Fair Lawn ARC is the fastest growing ham club around, with five operating positions in a permanent clubhouse. Visitors and guests are always welcome. The club is open every Friday night from NLT 6:30 PM. Business meetings are the first Friday of the month at 7:30PM.

2021 Officers, Committees and Assignments

President	**Nomar Vizcarrando**	**NP4H**
Vice President	**John L. Howard**	**W2JLH**
Treasurer	**Bruce Kalogera**	**NJ2BK**
Secretary	**Tom McCabe**	**N2AXX**
Trustee	**Ed Efchak**	**WX2R**
Trustee	**Don Cassarini**	**K2PD**
Trustee	**Fred Wawra**	**W2ABE**
Field Day	**Steve Wraga**	**WA2BYX**
Member Services	**Judith Shaw**	**KC2LTM**
Publicity	**Ed Efchak**	**WX2R**
Publicity	**Gene Ottenheimer**	**WO2W**
Publicity	**Judith Shaw**	**KC2LTM**
Publicity	**Susan Frank**	**W6SKT**
Program	**Lowell Vant Slot**	**W2DLT**
Publicity	**Karl Frank**	**W2KBF**
Publicity	**Nomar Vizcarrando *(ex officio)***	**NP4H**
Social Media	**Dave Marotti**	**NK2Q**
Video/YouTube	**Thom Guida**	**W2NZ**
VE Liaison	**Gene Ottenheimer**	**WO2W**
VE Liaison	**Pete Senesi**	**KD2BMX**
Contests	**Lowell Vant Slot**	**W2DLT**
Education	**Gordon Beattie**	**W2TTT**
Education	**Randy Smith**	**WU2S**
Education	**John L. Howard**	**K2JLH**
Education	**Fred Wawra**	**W2ABE**
History	**Fred Belghaus**	**W2AAB**
Health and Welfare	**Judith Shaw**	**KC2LTM**
Photographer	**Don Cassarini**	**N2PRT**
W2NPT Trustee	**Paul Cornett**	**W2IP**
Technical	**Paul Cornett**	**W2IP**
Technical	**Randy Smith**	**WU2S**
Technical	**Fred Wawra**	**W2ABE**
RACES/ARES Director	**Dave Gotlib**	**KD2MOB**
RACES/ARES Liaison	**Steve Wraga**	**WA2BYX**
Newsletter Editor	**Ed Efchak**	**WX2R**
FL Town Liaison	**Gene Ottenheimer**	**WO2W**
Net Scheduler	**Brian Cirulnick**	**KD2KLN**
Quartermaster	**Brian Cirulnick**	**KD2KLN**

Fair Lawn RACES/ARES Corner

Hello fellow ARES members and friends.

Welcome to 2021! We can now safely state that hindsight is 2020. December was a relatively quiet month regarding ARES drills; however, the Fair Lawn Amateur Radio Emergency Service (FL-ARES) group held their weekly nets and practiced messaging, just like every other month.

Hank WA2CCN, DEC of Wayne County ARES was a guest of ours and he provided us with a couple of messaging sessions during December. Hank WA2CCN is a great resource for ARES activities and messaging techniques.

I would like to thank Aly AL0Y for installing VARA FM on the NJ2PC Repeater, located on top of Garret Mountain in Passaic County. We are all invited to connect to the local Winlink Radio Message Server (RMS) AL0Y -3 via the NJ2PC Repeater on a frequency of 146.610 MHz using Winlink, VARA FM. The Winlink drills are typically all day on Sundays and I would encourage the FL-ARES team and other ARES members to send messages using Winlink.

Winlink is a messaging program which encompasses various messaging applications such as Telnet, Packet, VARA HF and VARA FM. AL0Y -3 is one of two Radio Message Servers within 100 miles which has the capability of using VARA FM and AL0Y -3 is only 5 miles away from Fair Lawn. Winlink opens up the world to emergency communications.

There are many hams who aren't very familiar with Winlink; however with practice, discussions and watching videos, learning comes a long way. Please note the time of the FL-ARES KB2FLA Nets. They are taking place on Wednesdays at 2000 hours on the FLARC and NJ2BS Repeaters.

Please join us every Wednesday for any updates,

Continued on page 5.

Fair Lawn RACES/ARES Corner,

messages or activities which may take place. We are practicing the operation of Winlink and preparing traffic / messaging for our membership.

We are on the following Repeaters and Echolink: The Fair Lawn ARC Repeater info is: RX 145.47 MHz / TX 144.87, PL Tone 167.9 Hz. Echolink W2NPT-R.The NJ2BS Repeater info is: RX 146.835 MHz / TX 146.235, PL Tone 151.4 Hz. Echolink KD2BKD-L.

FL-ARES would like to thank the FLARC for the use of its repeater as well as the Venture Crew 73 73 Club for the use of their repeater. We are fortunate to make Fair Lawn and the surrounding communities our home. With our leadership and support from the FLARC we can grow and be of assistance in many community events.

We are always seeking new members to join FL-ARES. Please sign up for various nets and activities taking place at the following email address:
https://arrl.volunteerhub.com/lp/nnj

Info on FL-RACES is as follows: Our next FL-RACES KB2FLR net will take place on Wednesday, January 13th at 2015 hours on the Fair Lawn ARC Repeater as well as the NJ2BS Repeater (frequencies noted above). Thank you to the Fair Lawn Amateur Radio Club for permitting FL-RACES for using the repeater.

FL-RACES has provided the Borough of Fair Lawn OEM with their Annual Report of Activities for 2020. Thank you to all who have made FL-RACES the successful organization that it is. FL-RACES is part of several RACES groups which operate within Bergen County and from time to time has training opportunities with Bergen County RACES.

Fair Lawn RACES/ARES Corner, cont.

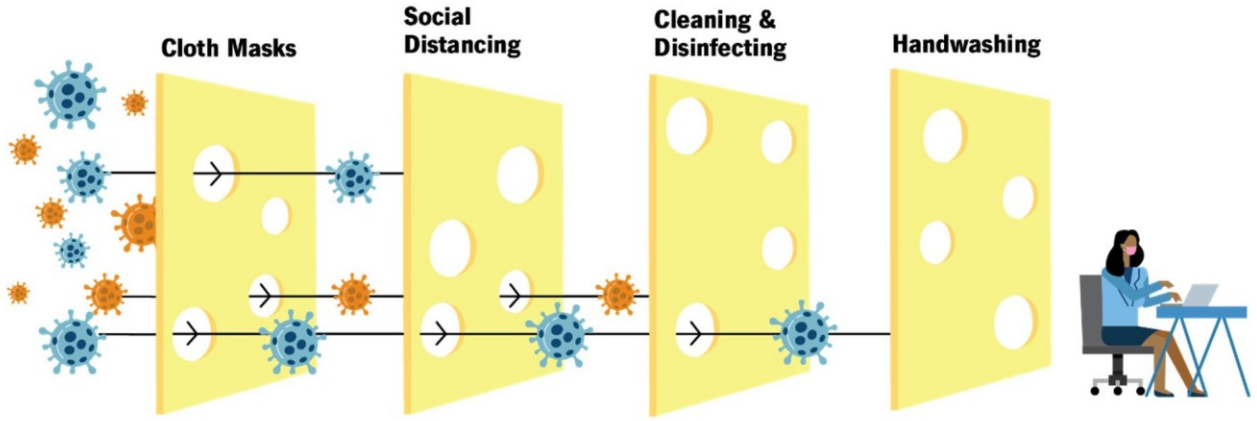
We were the Net Control Operating Station for the BC-RACES Net on November 11th at 7:45 PM. David KD2MOB was the Net Control Operator and scribe during the BC-RACES Net. Thank you to those who have taken part as the Net Control Station in the past. During the COVID-19 pandemic, our monthly briefings take place during the FLARC business meeting. Please join us for the next FL-RACES briefing.

The volunteer efforts of our members are very much appreciated. If you are interested in joining the Fair Lawn RACES, please contact me. Anyone who's a licensed amateur radio operator may join Fair Lawn RACES and there's no residential requirement.

For information regarding Bergen County RACES, please go to **http://www.bcnjraces.org**

Please be safe and be well. Looking forward to a new year volunteering in drills in the winter, spring, summer and fall. Thank you very much. 73. Have a Happy New Year!!

David KD2MOB
Emergency Coordinator FL-ARES and
President FL-RACES



MASTER EVENT CALENDAR

Out of an overabundance of caution and our care for your safety, (not to mention state law) all FLARC events are postponed or rescheduled until further notice due to COVID-19.

January 1, 2021	Happy New Year!
January 15, 2021	FLARC Speaker Series: Lauren Libby W0LD “Behind the Scenes at Trans World Radio (Zoom Room)
February 19, 2021	FLARC Speaker Series: Ed Efchak WX2R “The FLARC Member Survey”
April 24, 2021	The Great FLARC Hamfest
TBD	Return Visit To iHeartRadio/WSUS transmitter
TBD	Field Trip to Sarnoff Center, Princeton

More Than A Club…
A Community Of Friends!

Hidetsugu Yagi's 130th Birthday Google Doodle

Follow FLARC ON THE WEB

Facebook:	http://facebook.FairLawnARC.org
Twitter:	@FairLawnARC
Blog:	http://blog.FairLawnARC.org
Youtube:	http://youtube.FairLawnARC.org
Website:	http://FairLawnARC.org

SIG Group Participation as of January 4, 2021

Here is an update on the roster of Special Interest Groups:

DMR	28
Monitoring	23
DX	12
FT8	15
Portable Ops	14
FLARC General	132

Sign up for a group... or …
why not start one?

Contact webmaster@FairLawnARC.org
if you would like to start a new
Special Interest Group.

An Inside Look At Trans World Radio

Kicks Off 2021 FLARC January 15th "Kawfee Tawk" Series

What does a million watt transmitter look like? We'll get an inside look at one of the largest shortwave broadcasters in the world as Trans World Radio International President Lauren Libby W0LD takes us on a global tour of their transmitters and broadcast and media operation that speaks to 175 countries in 230 languages daily.

The presentation will be via Zoom on Friday, January 15, 2021 beginning at 7:30 PM EST (2330 GMT) and is open to all.

Lauren has been a licensed Radio Amateur since age 12. He has held the amateur call signs WN0LSH, WA0LSH, KX0O, V31JO, CO2/KX0O, PJ4V and W0LD. He has been to over 90 countries visiting many other international amateur radio operators.

Lauren has been an active VHF/UHF amateur since he has been licensed, holding WAS/WAC on 2 meters and WAS on 6 meters as well as VUAC on 6 & 2 meters, 2.3 Ghz and 3.4 Ghz. He has served twice as president of the Central States VHF Society. He was awarded the Mel Wilson award for service to the VHF/UHF community. He was elected to membership in the Radio Club of America. Lauren chaired the VUAC committee of the ARRL in the 1990s and in the 2000s.

This presentation is part of the FLARC Monitoring Special Interest Group (SIG) program. All are welcome to join our SIG via groups.io

AMATEUR RADIO TESTING AT THE FAIR LAWN AMATEUR RADIO CLUB

On January 16, 2021 the Fair Lawn Amateur Radio Club will continue amateur radio test sessions on a modified basis.

These sessions will be held at the **Ridgewood Masonic Lodge.**
The location is at 99 South Maple Avenue, Ridgewood, NJ

The session starts at 9:15 AM.

A document will be provided to you prior to the date to indicate the time assigned to you. You must have it with you to take the test.

Prior to Testing:

Send an email to wo2w@arrl.net requesting to book your spot.

PRE-REGISTRATION IS REQUIRED - NO WALK-INS ACCEPTED.

Upon Arrival:

You must have a government issued ID such as a valid driver’s license or passport, a filled out Form 605, and **3 filled out copies of the FCC CSCE form.**

Please Bring With You:

- **You MUST bring and WEAR personal PPE items including a face mask.**
- 2 pens and 2 pencils. None will be provided to you, due to possible virus transmission.
- **Your FRN number, and (if licensed) a copy of your ham license or a valid CSCE (Certificate of Successful Completion Exam).**
- Additionally, the **$15.00 exam fee**. This is payable in cash (exact amount is a must).

- For information and scheduling, please contact:
- Gene/WO2W
- WO2W@arrl.net

- Visit our website at www.FairLawnARC.org and http://bit.ly/FLARC-Testing

v201226-01

Notes From The Sunshine State

— Gordon W2TTT

Around 1984, shortly after Nancy N2FWI and I bought our home in Bergenfield, the mission to acquire and install a suitable tower that we could afford commenced.

A few calls on the radio yielded a lead on an E-Z Way tower in Paramus at the QTH of W2JC. It was of heavy steel and included a mounting post that looked like a Sidewinder missile. To be more exciting, it was buried in the weeds of Jim's side yard.

A deal was struck, but now the issue of extraction and transportation emerged. Nancy's girlhood friend Julie and her husband Bobby owned a towing business. The availability of a flatbed was arranged and Julie and I met at Jim's house. Julie navigated her truck onto Jim's lawn and using the winch, slowly and steadily dragged the tower into the daylight and onto the flatbed.

We then drove off to Bergenfield where several of our neighbors, with eyeballs bulging and their mouths agape with disbelief, watched Julie back up into our driveway – leaving the tower for all to see as she cheerfully waved good-bye!

A few days later, there was a hole dug in our back yard and with 8x16 inch patio blocks acquired from the Rickel store on Washington Avenue, the tower was up without antennas or feed lines – but with the first of many TVI complaints already arriving on our telephone!

As they say at the Olympics, "Let the games begin!"

Now, let's go forward 36 years and Nancy and Gordon have moved to rural Suwannee County in northern Florida. This location was specifically selected for a whole bunch of reasons – including a wonderful Amateur Radio community in the form of the Suwannee Amateur Radio Club, N4SVC and reasonable building codes.

This brings us to that "deja vu" moment that I alluded to when I started to type out this story.

Our 20 acres here, near Live Oak in western Suwannee County, will have several towers; but the largest one that is currently planned is a 92 ft Aluma motorized crank up tower that goes down to 26 feet.

Notes From The Sunshine State

continued

This tower is being shipped as we speak, from Conyers, Georgia! This lovely little town on Interstate 20 is just south of Atlanta and is also the headquarters for AT&T's transport network.

When I worked for AT&T Bell Labs/AT&T Labs, I would visit there, or be in remote meetings with colleagues there, throughout my 33 years with the company. So today, I was sent photos by the fellow from whom I bought the tower, Cal K1CAL.

Yes folks, in a few short hours, a flatbed will arrive here with our tower!

And so, with a different tone, "Let the games begin!"

VY 73,
Gordon Beattie, W2TTT

How do you get a monster tower off the back of a pickup truck?
... with a block and tackle, and a helpful pecan tree !
How do you move the monster tower around the property?
... with your nifty orange do-everything tractor !

THE GREAT FLARC HAMFEST

Save The Date!

April 24, 2021

Equipment Problem?

If you encounter a piece of club equipment, instrument or tool that is not working correctly or is broken in any way, we now have a Trouble Report form that you can use to describe the problem and report it to the Technical Committee -- who will arrange for repair.

Special Note: *As non-profit, the IRS now requires that we disclose annually the use of paid lobbyists to our members and indicate approximately what percentage of their dues goes toward that. 0% of your 2021 dues payment will be used by the club to directly pay a lobbyist firm to lobby on behalf of all our members regarding pending legislation that impacts our hobby.*

Thanks To Our Outgoing 2020 Board Members!

A tip of the FLARC hat to three members who have gone above and beyond in their service to FLARC over many years and are now stepping down:

Al Rasmussen WA2OWL

Randy Smith WU2S

Skip Barker KD2BRV

Thanks for all your good work!!

Please Note: Operating at W2NPT

Starting in January 2019 club trustees have sign-in sheets for all operating positions. There is a clipboard at Operating Position #1, #2 (digital) and #4 with a form on which to sign up for half-hour time slots. No longer first come-first served, in fairness to all who want to use our club equipment and the new antennas. Hopefully some day we will again be able to use our operation positions!

Get Direct With FLARC!

Here is a direct link to specific club info: just a click away!

http://apparel.FairLawnARC.org
http://auction.FairLawnARC.org
http://blog.FairLawnARC.org
http://calendar.FairLawnARC.org
http://events.FairLawnARC.org
http://exams.FairLawnARC.org
http://facebook.FairLawnARC.org
http://news.FairLawnARC.org
http://swap.FairLawnARC.org
http://tech.FairLawnARC.org
http://youtube.FairLawnARC.org

NEW !

https://groups.io/g/FairLawnARC

December 2020 Blog Traffic

With coronavirus dominating the news, both visitors and page views to the blog were down again this month. We've also done more email and groups.io to members.

	December 2020	December 2019
Views	387	495
Visitors	221	324
Posts	7	9

There is new content nearly every day so it's really worth the look at both FairLawnARC.org and the blog.
http://blog.FairLawnARC.org

January 2021 *Near and Far* Net Controls

Here is the roster for net controls for the upcoming month as reported by Brian KD2KLN:

Date	Net Control
January 4	KD2KLN
January 11	KD2MOB
January 18	Who knows? you?
January 25	N2AAM

But we need more volunteers to be net controls -- if everyone takes their turn it's less burden on the others. And it's easy.

Volunteer --- don't wait to be asked
(unless you really want to be flattered).

Ham Radio Is Contagious
And It Won't Make You Sick!!

Oh Yes!
It's Time For The
2021 FLARC Member Survey

The 2021 FLARC member survey arrived in your email box on Saturday December 5th.

This year the questionnaire is shorter than prior years (thank you!) but no less important as it reflects a lot of the changes brought about by Covid-19.

We'll present the results at the February 19th *Kawfee Tawk.*

Club Apparel —
Get Them While They're RED!

Club apparel is always in vogue. Red is always "in" and your club friends all have them... you *want* a shirt or jacket for the next FLARC event! Great for Field Day!

Don't forget.... they're easy to order.
Go to www.hamthreads.com
or visit http://apparel.FairLawnARC.org

Check out the item selection that is posted on the FLARC website (with pictures and prices). Order the shirts or other items you want with either the regular FLARC logo or the still-cool 60th anniversary logo. Note: **RED** is the primary and preferred club standard shirt color**.**

And why not WEAR your nice red shirt when you come to the club, especially for meetings and events.

FLARC at W1AW • February 2018

2021 FLARC Nets On The W2NPT Repeater:

Near and Far Net Mondays at 8PM

Health and Welfare Net Wednesdays at 7PM

W2NPT and NJ2BS Repeaters

Congratulations To Our 2021 Officers!!

President: NP4H Nomar Vizcarrando
Vice President: W2JLF John Howard
Secretary: N2AXX Tom McCabe
Treasurer: NJ2BK Bruce Kalogera
Trustee: K2PD Don Cassarini
Trustee: WX2R Ed Efchak
Trustee: W2ABE Fred Wawra

Remember:
Ham Radio Is A Contact Sport!

BEQUEATHS AND DONATIONS

Planned gifts usually imply the family donation of amateur equipment to the club when someone has become a Silent Key. But it can be more. Club members might consider making a gift through a will or trust; gifts that help provide lifetime income to the club. Consult with your lawyer, estate planner or tax advisor if you feel such as gift is worthy.

About The Club

The Resonator is published monthly and is the official (and only) newsletter of The Fair Lawn Amateur Radio Club. FLARC was established in 1956 and has met continuously since inception. **The club is sponsored by the Borough of Fair Lawn.** The club meets every Friday at 6PM at the club station in The Fair Lawn Community Center, 10-10 20th Street, Fair Lawn, NJ. Business meetings are the first Friday of the month at 7:30 PM.

Visitors ARE ALWAYS welcome at our meetings.

FLARC operates the W2NPT repeater (145.470-PL **167.9**) located high atop the Community Center. The analog repeater is open to all amateurs for use without restrictions.

The club has over one hundred paid members.
Dues are currently $25 per year;
$20 for new members.

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A New Net Is Born!

The Health and Welfare Umbrella Net
Wednesdays
7PM Local
W2NPT and NJ2BS Repeaters
Open To All

PUBLICITY COMMITTEE NEWS

The Publicity Committee is seeking new members to help grow the club with its varied activities. Enthusiasm desired… no experience necessary. Contact Ed WX2R or any other committee member.

FAIR LAWN'S
COMMUNICATIONS CENTER!
With New Antennas On The Roof!

2020 *Near and Far Net* Check-In's

Now in its third year, the FLARC *Near and Far* net is chugging along each week. Here is list of our check-ins beginning on New Year's Night in no particular order. Mondays at 8PM on the repeater.

Call	Name
N2AAM	Dave
WO2W	Gene
W2DLT	Van
KD2MOB	Dave
W2JC	Jim
WI2W	Steve
N2SU	Bob
N2OEL	Noel
WX2R	Ed
W2AAB	Fred
KD2KLN	Brian
W2MSA	Noel
W2KBF	Karl
AC2ZU	Charlie
W3EH	George
KC2TBD	Ron
TG9AOR	Joe
N2OEL	Noel
N2JLF	Jim
W2TAB	Tom
KC2TBD	Ron
KA2YRA	Steve
WA2BYX	Steve
KD2BKD	Bob
KC2K	Stan
KA2YRA	Steve
WA2CCN	Hank
W2TTT	Gordon
NJ8Y	Ahmed
NJ2BK	Bruce
W2CQX	Dan
W2KNG	Jim
WK2T	Lee
W2NZ	Thom
K2PD	Don
KD2JIP	Dave
K2ZVL	Van
KC2ASA	Peter
W2AAB	Fred
KD2LRX	Jason
K3DQP	Walt
KD2TVZ	Ed

2019-20 Member Profiles

The year is now complete and here is a list of the 2019 monthly profiles. See past profiles elsewhere in *The Resonator* to check back in the archives to see each featured member's background.

Month	Name	Call Sign
January 2019	Dave	KD2JIP
February	Jim	K2ZO
March	Zach	KC2RSS
April	Bob	N2SU
May	Stan	KC2K
June	Steve	WA2BYX
July	Roger	K2RRB
August	Judith	KC2LTM
September	Chris	W2TU
October	Bob	N2SU
November	Bob	WA2ISE
December	Carol	KD2NMV
January 2020	Gordon	W2TTT
February	Chris	KD2JQZ
March	Glenn	KD2MDR
April	Steve	K2SAB
May	Ahmed	NJ8Y
June	Charlie	AC2ZU
July	Jim	N2JLF
August	Walt	K3DQB
September	Gregg	N2ECH
October	Jim	W2KNG
November	Dave	KD2SGM
December	Tom	N2AXX

2021 Dues Are Due

Dues for 2021 will be accepted by the club starting on December 4th with the 2020 Annual Meeting. There are no changes to dues for the upcoming year. Cutoff date is March 31, 2021.

Please makes checks payable to "Fair Lawn Amateur Radio Club" and send them to

Bruce Kalogera NJ2BK
163 Meadow Lane
Secaucus, NJ 07094

Mail sent to the clubhouse will be delayed due to Covid. See website for other membership options.

Past FLARC Member Profiles

Here is a list of past member features and we welcome your recommendations for new profiles -- including your own.

Month	Name	Call Sign
January 2016	**Pete**	**KB2BMX**
February	**Marco**	**KC2ZMA**
March	**Ron**	**KC2TBD**
April	**Kai**	**K2TRW**
May	**Larry**	**WA2ALY**
June	**Dave**	**N8MAR**
July	**Steve**	**WI2W**
August	**Thom**	**W2NZ**
September	**Brian**	**KD2KLN**
October	**Brad**	**KM2C**
November	**Al**	**WA2OWL**
December	**George**	**W3EH**
January 2017	**Fred**	**W2ABE**
February	**Dave**	**KD2MOB**
March	**Randy**	**WU2S**
April	**Lee**	**KD2DRS**
May	**Gene**	**WO2W**
June	**Carol**	**KD2NMV**
July	**Kevin**	**KC2KCC**
August	**Robert**	**KD2NOG**
September	**Robert**	**KD2BKD**
October	**John**	**KD2NRS**
November	**Fred**	**W2AAB**
December	**Margaret**	**W2GB**
January 2018	**Brian**	**KD2OAZ**
February	**Bennett**	**KO2OK**
March	**Van**	**W2DLT**
April	**Aly**	**AL0Y**
May	**Bruce**	**NJ2BK**
June	**Dave**	**N2AAM**
July	**Karl and Susan**	**W2KBF and W2SKT**
August	**Steve**	**KA2YRA**
September	**Paul**	**K2PJC**
October	**Skip**	**KD2BRV**
November	**Jim**	**W2JC**
December	**Tom**	**N2AXX**

By the way, Randy (WU2S) has compiled a binder of all back issues of *The Resonator* and it's located in the club office. Thanks Randy!!!

Blood Donors Needed In This Time Of Emergency

The Red Cross and related organizations are in great need for blood donations since most corporate blood drives have been cancelled.

Communitybloodservices.com has a network of offices open during the week and would really welcome folks making appointments to donate blood.

Thanks!

American Red Cross

Tony Lipetri KD2HIT SK

The club sadly announces the death of Tony Lipetri (KD2HIT) became a silent key on December 17th.

Dave NK2Q reported that his wife reached out to let us know. Most of you remember Tony L. He lived in Rochelle Park, but moved to somewhere in Toms River about two or three years ago.

He loved the FLARC club, and you'll probably remember him sitting at the conference table on many a Friday night. He told Dave less than a month ago by email that he missed the club, and that no other clubs he had visited compared.

Our condolences to his XYL and family.

New Member Profile, continued

local resource for ham radio. Since the clubhouse has been closed since I joined, I learned about the club mainly through the website, the nightly (at the time) Health & Welfare net, monthly Club virtual meetings and the weekly ARES net. My impression of the Club is overwhelmingly positive, for the high-quality presentations and people I have met on the air. Most have had a positive outlook and many have been very generous with their time to explain rudimentary elements of the hobby to a newbie.

What else can you tell the club about yourself and/or ham radio?

I would like to explore how far I can take functions that I can perform with an HT, learning about different opportunities for FM propagation, DMR, portable operation, emergency communications and traffic handling. I never made it past Morse Code as a Boy Scout, so eventually learning CW would give me a chance to redeem that missed opportunity.

What other ham related clubs or organizations do you belong to?

I am currently a member of ARRL, Fair Lawn and Bergen County ARES and the Franklin Lakes and Ramsey OEM communications teams.

FLARC December 12, 2020
VE Testing Results

With VE testing back on a trial basis, Gene WO2W reports the following results:

Name	Call	License Earned
Augustina Arocho	N2FXT	General
Karen Martis	KD2VFY	Technician
Abrar Malik	KD2VFX	Technician
Mauricio Delgado	KD2VCU	General

Testing for January will be indoors, at the Ridgewood Masonic Lodge - with "Covid Restrictions."

See page 8 of this Resonator copy, and also the FLARC website for the latest details.

Five Special Interest Groups [SIGs] Already Formed: Any Others?

We may be in lockdown but there is no lack of club interest. So far, the Radio Monitoring Group has 18 members and we've started a Digital Modes (DMR) group thanks to KD2DRS and NP4H. There is also an FT8 SIG and a POTA SIG headed up by Noel W2MSA.

Other possible groups, from the member survey, include:

- *Radio Propagation*
- *Antennas and how they work*
- *Kit building*
- *Raspberry pi and Arduino*
- *Ham radio software*

Anyone interested in leading any of these groups… ?
Please contact Nomar NP4H.

Here Comes The Sun
Hello Solar Cycle 25!

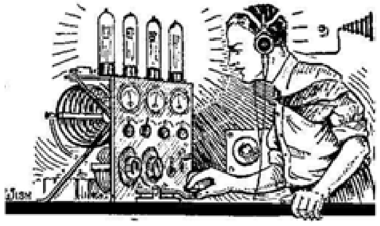


Image from May, 1926 QST, courtesy ARRL

The Way We Were

By Fred Belghaus W2AAB

Receivers I Have Known

Part 2

Last month's column focused on the receivers I have known in the early years of my amateur radio career. This month, we continue with the receivers I have either owned or used in later years, both consumer grade, amateur, military, and professional and, as usual, some background information about them.

In the late 1960s, I began activity in message handling. At the time, I was still using a Drake TR-3 transceiver – but not for long. Some technical issues sent me looking for a replacement. By 1970, I had acquired a Johnson Ranger II transmitter, which covered 160 through 6 meters, CW and AM. But I needed a receiver, and I wanted it to be a good one.

I had heard about a receiver that had a reputation for being one of the best. It was not an "amateur" receiver, but made for the military. It was the R-390/URR, originally designed and manufactured by Collins Radio. Many of these receivers, including an "A" version, were made from about 1954 through the early 1980s.

I acquired an R-390 from the late John Kakstys W2FNT, who was a used equipment dealer in Linden. His basement "store room" was a collection of every type of amateur equipment which he repaired as necessary, and sold at generally fair prices. The R-390 is an impressive receiver, normally rack mounted, or installed in a metal cabinet.

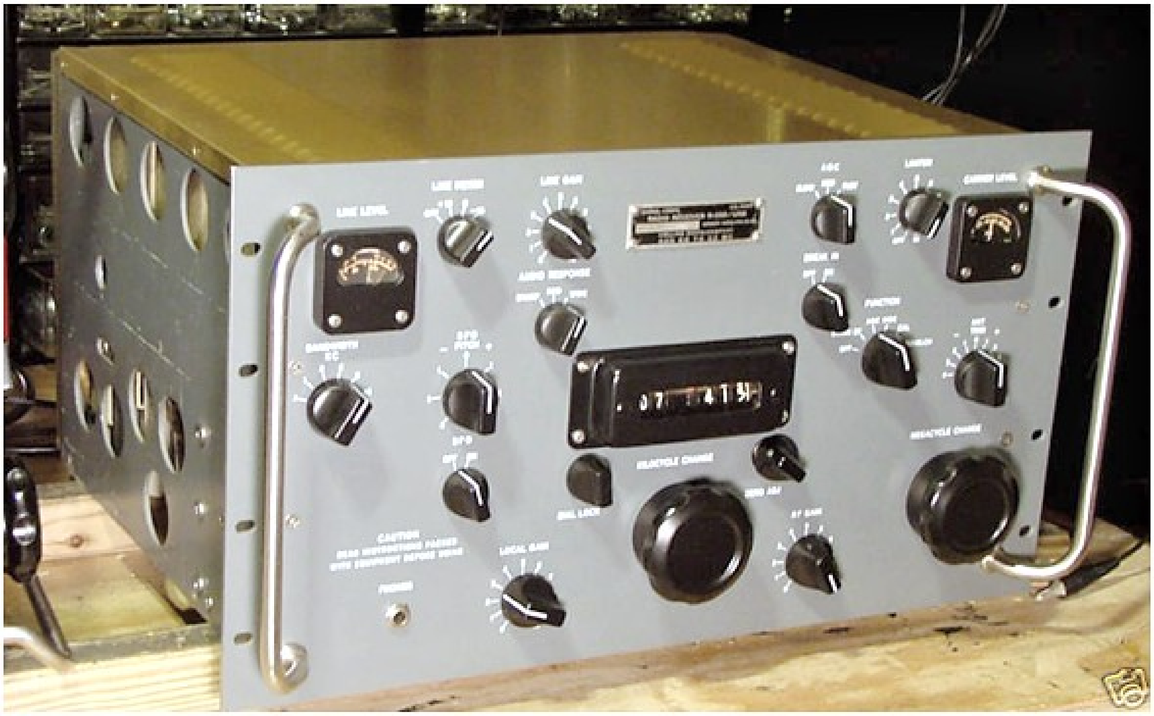
The R-390 is a triple conversion superheterodyne, and built like a tank. Frequency coverage is 500 kHz through 32 MHz, and band switching is accomplished by a heavy duty, geared turret drive, with mechanical frequency readout provided by a second knob driving a Veeder-Root counter. There is also a "fine" calibrated indicator with readout in 100 Hz divisions. It receives CW, AM, and SSB, but without a product detector.

In its conventional state, it is a secondary frequency standard. When an optional heating element is switched in, it becomes a primary standard. Calibration accuracy is astoundingly good over its entire frequency range. Bandwidth selection is by means of LC circuits rather than mechanical filters.

There are two ruggedized meters on the front panel: a Carrier Level meter measuring signal strength in microvolts, and a Line Level meter measuring modulation in dB (reading -20 to +3 dBm), which is essentially a "VU" meter – similar to those used in broadcast audio consoles.

Continued on next page.

The Way We Were, continued.



R-390/URR Receiver (Collins)
Image: http://www.navy-radio.com/rcvrs/images/r390-urr-02.jpg

The bandwidth is selectable in six steps from 100 Hz to 16 kHz. If you've never heard a high fidelity AM broadcast station on a receiver with 16 kHz bandwidth driving a big loudspeaker, it is quite a treat! Although I used this receiver primarily for HF CW operation in traffic nets, it was a first class receiver for AM broadcast band DXing. In fact, it was the very best receiver I've ever used for that purpose. I pulled in lots of distant stations on nothing more than one of my dipole antennas. No, I didn't have a loop (yet), but I received many QSLs from AM broadcast stations using it with the antennas I had at the time.

For a good summary of the R-390 and how it works, see this link for a detailed video:
https://www.youtube.com/watch?v=hQjtyYP-eqY

But there was one small glitch in my R-390. These receivers used a Ballast tube, and the Ballast tube in mine blew. In those days, it was very difficult to find an exact replacement. One of my ham buddies boasted that he could replace it with a simple circuit modification. Not knowing any better, I loaned it to him and waited for the promised repair. I waited and waited, but every time I asked about it, he put me off. My ham buddy moved to New Hampshire, and I never got the receiver back. He passed away some years ago.

In the meantime, I acquired the later version (an R-390A/URR) from a non-ham ex-military communications specialist in Morris County. The 390A is almost identical, but with fewer tubes and with "improved selectivity" using mechanical filters. [1] The former owner made one improvement, the addition of a product detector to copy SSB. It worked well enough, even on SSB, but the broadcast band performance seemed somewhat worse than the R-390. I used it for awhile, but later sold it to a ham in Paterson.

The Way We Were, continued.

Around 1970, I was given another unusual receiver from a ham friend. It was a Meissner 9-1091-C, AM-FM High Fidelity Tuner. Originally sold around 1950, it was an excellent receiver and great for both standard AM and FM broadcast DXing.

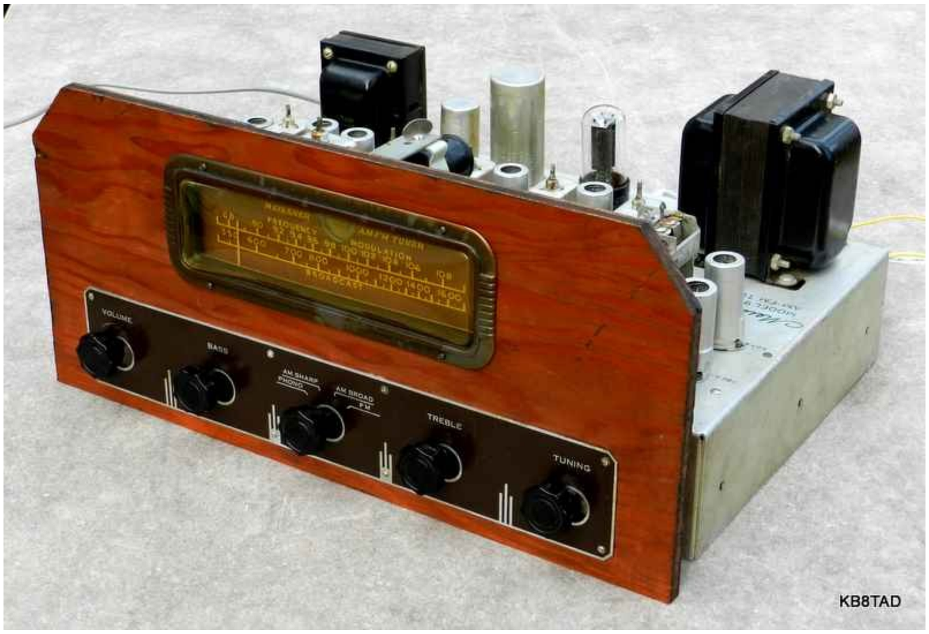


Image: https://people.ohio.edu/postr/bapix/MeiAMFM9.htm

It's only drawback was very low audio output, as would be expected with a tuner only – to which an audio amplifier would normally be connected. I had to use a small speaker with an AF matching transformer to listen with it. It had a Broad and Sharp selectivity adjustment, and on AM in the Sharp position it was very selective. There were also Bass and Treble tone controls that offered some ability to further reduce adjacent channel interference by adjusting for greater bass.

Around 1950, the tuner sold for $245 — a helluva lot of money in those days! It had 18 tubes plus rectifier, with separate RF and IF stages for AM and FM, and a “magic eye” tube for precise tuning. Sensitivity on the AM band was advertised as “less than 10 Microvolts.” [2] If that seems high by current standards, keep in mind that the typical inexpensive table radio had sensitivities in those days much worse than that.

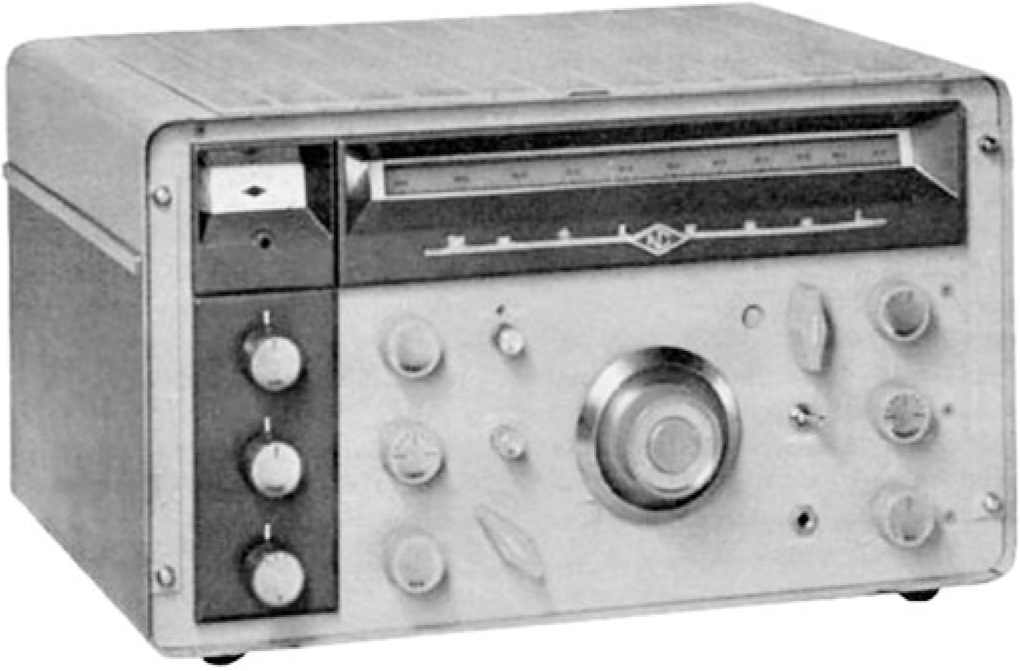
At about the same time, I had assembled a pretty good VHF station, using a Johnson 6N2 transmitter (using my Ranger II as power supply/modulator) and a National NC-300 receiver with Tecraft “Criterion” converters on 6 and 2 meters, plus a spare Tapetone converter for 6. The 6N2 ran about 100 Watts, and was a killer on 2 meters with my 11-element yagi. I wouldn’t dare use it on 6, for fear of TVI. On 6, I used low power rigs only, with a low pass filter. I had never really been a fan of National, having previously used both a World War II-era HRO-5TA at a friend’s station, and an NC-183D receiver at the Fair Lawn High School Amateur Radio Club station, WA2KMH.

> Editor's note: TVI might be a term unfamiliar to those who became hams after the 1970s or so. It refers to Television Interference, TVI. Back in those years, to low-channel TV stations were right in the 50 MHz (Mc.) range — so six-meter hams, transmitting on 50 to 54 MHz blew away local TVs!

The Way We Were, continued.

I found the HRO a nuisance because, to change bands, you had to unplug a tuning drawer and plug in another one; sometimes with poor contact when inserted, making you have to unplug and plug it in again, until the contact was better. Sometimes, even then, the contact was intermittent. The NC-183D was a big beast, and not very stable. We had to leave the receiver turned on when we went to the club room in the morning, until we shut down after classes. Even then, if you bumped the table, the receiver jumped a few kilohertz anyway.

But the NC-300 was better by far, at least when used with a VHF converter. For one thing, it had a large, beautifully smooth, weighted main tuning dial that was a dream to use, allowing you to quickly tune the 2 meter band. It was perfect for the days of AM on 2 meters, and highly regarded for that. I never used it on HF, though; but it had some decent filtering, which really worked well when chasing weak signal stations on 2 meter CW. One of my first contacts with the 6N2 and NC-300 combo on 2 meters was a CW contact with W3LUL in Maryland.



National NC-300 receiver
Image: Universal Radio

The NC-300 covered 1.8 through 29.7 MHz, with calibrated bands for 6 and 2 meters and the 220 MHz band, using various VHF converters. The main tuning knob's tuning ratio was 40:1 with weighted flywheel adjustment. [3] The NC-300 was replaced by the NC-303, but for my purposes, it was by far the best receiver I had used for VHF work when paired with a good, low-noise VHF converter.

As part of my VHF activity in those days, I had gone on several VHF Contest "expeditions" with the Land Rovers Amateur Radio Club of Clifton. On one of these, we operated the ARRL January VHF Sweepstakes. We operated from snow covered Garret Mountain, while set-up inside the City of Clifton's Civil Defense Mobile Communications vehicle.

We operated 6, 2, and tried to get on 70 centimeters, with somebody's homebrew transmitter and converter, but no contacts were made on that band. But the tunable IF we used for the 70 centimeter converter was a Collins 75A-4.

I had only just heard of this receiver, and the glowing praise heaped upon it by serious DXers, but I had never used one myself. When the contest was over, I volunteered to return it to the ham who had loaned it to us, whose name was Herman, and whose call was W2ERZ. He lived on a steep hill in North Haledon.

I called Herman, and said I'd return his receiver ASAP, but he was in no hurry to get it back. He said to "hold onto it for a while, and call me back in a few weeks," which I gladly did. And then, I had one of the most remarkable experiences in my ham career.

Collins 75A-4 receiver
Image: eBay

Up until then, I had been using receivers that were 0.210 hitters, mostly swatting flies while playing in the minor leagues. With the 75A-4, I was introduced to what the 0.300 heavy hitters are like in the majors. This was, and still is, in my opinion, the finest receiver ever designed for amateur operating, and that's not just my opinion. [4]

The 75A-4 was originally part of the "Gold Dust Twins," when paired with the Collins KWS-1 transmitter/linear amplifier, which used a 4X150 final for an input power of 1 kilowatt. These two were sold first in 1955 at the astonishing selling price of over $2,500. [5] In 2020 dollars, that's more than $24,000! The only time I had seen the “Gold Dust Twins” in action was at the QTH of my Uncle in Queens, whose call was W2ESZ, and who ran it with a full sized, 3 element 20 meter mono-bander on the roof that was bigger than his house. I was only a kid, maybe 9 years old, but I do remember them, and they were very impressive, especially when my uncle could lean back in his armchair and casually ragchew with DX stations on SSB like they were locals.

What makes the 75A-4 such a good receiver, in my opinion, is twofold. First, the Collins mechanical filters that provide razor sharp selectivity, with notch tuning in QRM. For another, its superior ability to prevent overload from strong signals. Some will no doubt disagree, but though you can talk about your modern rigs and their “specs,” when I’ve used these “state of the art” receivers, they don’t come close to what a properly adjusted late model 75A-4 can do, even with its older technology. In any case, if I want a real radio, I want one with LC circuits and not software that supposedly “simulates” them. Sorry, engineers, it isn’t the same thing, and manufacturer’s “specs” are often, to be polite, overly optimistic.

After enjoying the 75A-4, I finally returned it to its owner. That was a sad day. Since then, I’ve seen these magnificent receivers for sale at unbelievably high prices, prices beyond my budget. I can’t help but wonder what these “state of the art” receivers will be selling for in another 65 years, or even whether they’ll be operable by then. I’ll wager they’ll never have value equal to a good 75A-4.

Having by now lost my R-390 and sold my R-390A, I was once again in need of a decent HF receiver. A quick trip down to Linden and W2FNT’s stockroom gave me several possibilities. One of the most unusual receivers he had there was a Hammarlund HQ-215. This rare receiver was all solid state, and priced fairly high. But in those days, transistor technology was not what it became in subsequent years. Many hams were skeptical of these receivers, and Hammarlund didn’t sell many of them. They turn up now and then on eBay and other places, but probably more as curiosities than as serious receivers.

I decided to stick with proven tube technology, so my choice was a used Hammarlund HQ-170. I’ve always preferred Hammarlund receivers to Hallicrafters, and the HQ-170 worked well for me. It covered 160 through 6 meters, and worked quite well with all modes: CW, AM, and SSB.

Hammarlund HQ-170
Image: https://www.qsl.net/ka9s/BA/Hammarlund.html

The Way We Were, continued.

The HQ-170 receivers were ham band only (not general coverage). There were several versions of this receiver. The image above is the standard model, which is the model I had. The HQ-170C included a clock-timer in the position at upper left, where a meter blank is with the Hammarlund logo inside it. This permitted the operator to set the timer to turn the receiver on and off at certain times. There was also an HQ-170A version, with somewhat better SSB reception, and the HQ-170A VHF that included a 2 meter converter in addition to the standard calibrated 6 meter receiver position.

I used the HQ-170 for another couple of years, but I became tempted by some of the claims made about a new manufacturer from Japan, whose name was Kenwood. One of my friends had just bought the Kenwood "Twins," which consisted of the T-599 Transmitter and R-599 Receiver. His praise for the receiver especially was enough for me to want to see one in operation at his station.

When I saw it, and listened to the bands, I was suitably impressed. The receiver was one of the "hottest" I'd ever used, and shortly thereafter I ordered the "Twins" for my own station, selling the Ranger II and HQ-170 to raise sufficient cash for the purchase. In general, I was not disappointed with this choice.

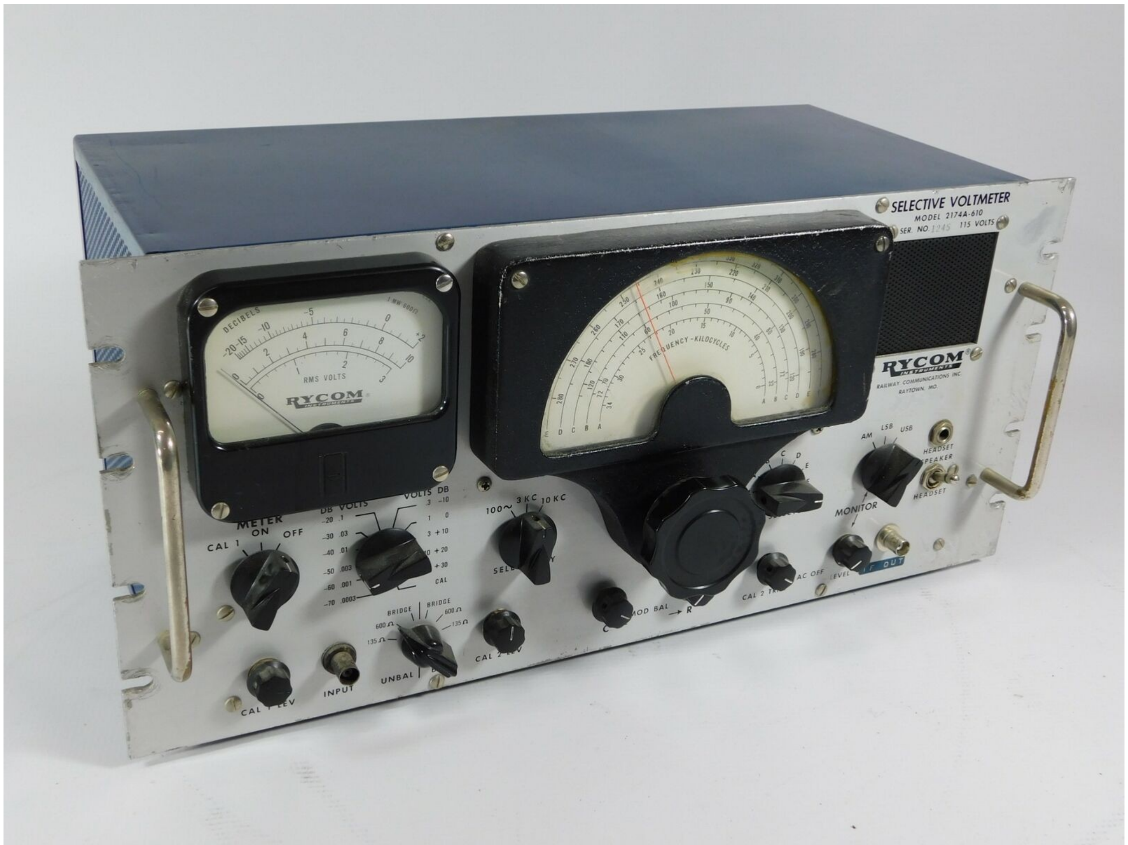
Kenwood R-599 receiver
Image: https://www.universal-radio.com/catalog/commrxvr/r599.html

The year was 1972, and this receiver was quite a departure from the receivers I had used up until then. For one thing, it was smaller, sleeker, and all solid state. By that time, the technology had advanced enough to produce a high quality receiver with great sensitivity and good selectivity. Not up to a 75A-4, but better than the HQ-170 by far. It covered 160 through 10 meters, and there were optional VHF converters available, which I never purchased. The T-599 transmitter ran 100 Watts, and only covered 80 through 10, however, so to operate on 160 it was necessary to provide a separate transmitter for that band, or a transverter. For 160, I used a Dentron 160XV Transverter.

The Way We Were, continued.

There was only one drawback to the R-599, and it was a serious one that I didn't discover right away. After some months, I started running a KW station, with a Hallicrafters HT-45 linear amplifier. I liked to monitor my off-air signal, but when I did this, by engaging the MON option, and making a few transmissions, the RF amplifier transistor would blow, killing all signals in the receiver. I replaced it, but the same thing happened again. After having to replace the transistor a second time, I decided that was enough to sell the "Twins" to a new Novice class amateur, when the power limit for Novices was 200 Watts. In the meantime, I bought an Atlas 350-XL transceiver, solely because I had been told that it had a QSK (full break-in) feature on CW. Unfortunately, the 350-XL was a dog, and I traded it, with some additional cash for a Collins S-Line. And that's another story, too!

While my S-Line was being shipped, I found a very interesting receiver advertised in the Fair Radio Sales catalog. It was a commercial design that covered VLF and LF. It was actually a "Frequency Selective Voltmeter," that covered what was specified as 0 to 420 kilohertz. It was a Rycom (Railway Communications, Inc.) model 2174.



Rycom 2174 Frequency Selective Voltmeter
Image: eBay

I had been interested in the VLF and LF bands for some time, but the only receiver I had that was capable of tuning LF was the Setchell-Carlson BC-1206, which I described in last month's column. It was okay for monitoring the NDBs (Non-Directional Beacons), but it wasn't very good for serious monitoring on the LF band. So, I ordered the Rycom. The price was $125.00 plus shipping. I've seen them recently on eBay being bid much higher than that.

The Way We Were, continued.

The Rycom 2174 “Frequency Selective Voltmeter” is also known as a “Wave Analyzer,” and it is actually a sensitive receiver with a signal level meter having 3 scales: decibels from -20 to +2 dBm, and two RMS Voltage ranges of from 0 to 10. There are selectable attenuators and filter settings to choose the appropriate pass band or signal level range for the signals being monitored. The filter positions were 100 Hz, 3 kHz, and 10 kHz. [6] These instruments are used in carrier systems, such as on microwave links, telephone or power lines, and on railway wire line systems for monitoring and analyzing subcarrier signals. There are two input impedance values that may be chosen via a pair of female BNC connectors on the back; one for 135 ohm unbalanced lines, or both for 600 ohm balanced lines. [7]

For a detailed description of what a Frequency Selective Voltmeter is and does, see Note [8}, and for how to use them for amateur radio purposes, see Note [9].

Nevertheless, this receiver worked remarkably well for DXing the VLF and LF bands, even though the impedance mismatch must have been considerable with the antenna I used for receiving. It was rather unconventional, inspired by an article I had read about receiving antennas for these low frequency bands.

A galvanized chain link fence runs around three sides of my property. I connected all three sections together with short lengths of No. 10 stranded copper wire, securing each wire with grounding clamps. Then I added another grounding clamp to one section, and ran 50 more feet of No. 10 stranded wire from that point down to my basement shack, where the receiver was located. I have no idea what the impedance of such an antenna might be, except that it was probably much higher than it should have been to obtain an optimum match to the input circuit of the receiver.

It didn’t seem to make any difference. This random, 215 foot long antenna worked well, but it also picked up a lot of noise. A better low noise antenna, I later learned, could have been created by connecting to the water main pipe, at the point where the pipe enters the basement, and just before the water meter. Such an antenna for receiving would have been much quieter, but with some sacrifice of signal strength. Of course, loops or Beverage antennas would have been better yet, but few people have the real estate to construct a Beverage several miles long, or have the patience and the real estate to build a fairly large, multi-turn receiving loop that would have to be rotated by an antenna rotator.

What did I hear down below 100 kHz? Before it was decommissioned and replaced by satellite communications, there was Navy station NSS at Annapolis, Maryland sending very narrow shift FSK on 21.4 kHz to U.S. submarines. At that frequency, the radio waves would propagate quite well, even under seawater. There was another narrow shift FSK station near that frequency, but I don’t recall what it was. NSS ran 2 Megawatts. [10] It was so strong that I had to switch in some attenuation, or it would pin the signal level meter. When there were thunderstorms, I listened in the VLF range, hoping to hear some “whistlers,” but I never heard any. The static crashes, incidentally, were horrendous over the entire tuning range of the receiver, the worst of them in the VLF range, which is not surprising, because lightning discharges can be miles long, and close to the wavelengths at those frequencies.

The Way We Were, continued.

There were a number of foreign broadcast stations from Europe in the 100 to 150 kHz range, but difficult to properly identify, because their voice announcements were in their native languages. I didn't have a directory of these stations either, but in later years I learned that the strongest of them was probably Radio Luxembourg, which ran 1 Megawatt with a huge tower. It, too, was later shut down. There was also what I think were "sub-harmonics" of local, standard AM broadcast stations. There is no AM broadcast band rejection in the input circuit of the 2174.

Of course, above 190 kHz, and up to about 400 kHz were numerous NDBs (Non-Directional Beacons). I logged many from the Eastern half of the United States and Canada, and DX beacons in the Bahamas and Africa, both "calls" of which, I have since forgotten. The Bahamas station was running 1 kW. I also was curious as to whether I could actually hear the 60 Hertz A.C. power line radiating at that frequency, so I tuned all the way down, and… yes! There it was, a loud 60 Hertz hum, probably coming from the electrical wiring in my house.

On 418 kHz was the RCA marine coast station WSL, "Amagansett Radio," on Long Island, which sent regularly scheduled weather and storm warning broadcasts to ships on CW. This station always pinned the signal level meter, so attenuation was necessary. This made for some fascinating copy, especially when there were storm and hurricane warnings for the Atlantic coast. It was great code practice, too! I'll have more to tell about WSL later in this article.

Finally, my Collins S-Line arrived from the dealer. I had purchased a used 32S-3 transmitter, and what I was told was a "new" 75S-3C receiver. The 75S-3C is identical to the more common 75S-3B in covering all amateur bands from 80 through 10 meters, but by turning a knob on the front panel, additional crystals could be added for up to 14 additional shortwave bands.

Collins 75S-3C receiver
Image: https://rigreference.com/rigs/2519-collins-75s-3c

The Way We Were, continued.

This was an improvement over the Kenwood R-599, with the expected superior engineering for which Collins was famous. It performed remarkably well on the 10 meter band, too, where most other amateur receivers of the day usually fell far short. The S-Line worked well for a year or so, but then problems developed.

First, the 32S-3 transmitter would sometimes lose power while transmitting. Neither I, nor the technicians at the Collins authorized repair depot in Maple Shade, New Jersey, could figure out the cause. I thought there might be a problem in the power supply, but they checked that, too, without finding anything wrong. Next, the 75S-3C receiver dial calibration went wacky. I could no longer line up the dial cursor to the correct calibration point on 10 meters with the 100 Hertz crystal calibrator.

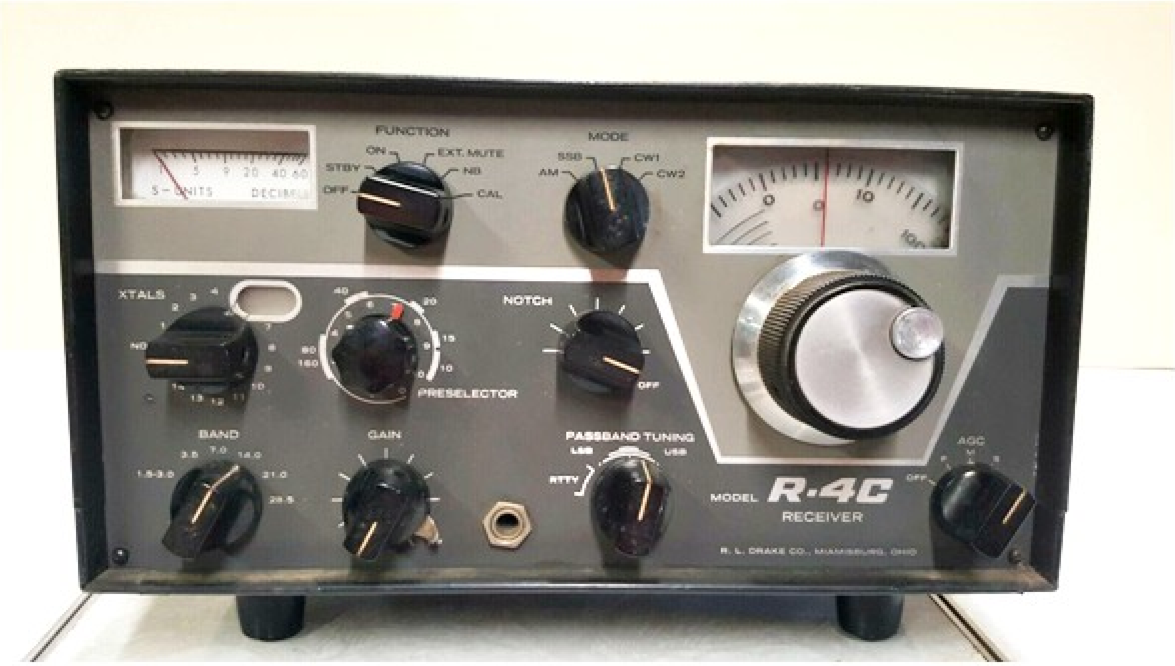
Another trip to the Collins repair depot brought forth a heated telephone discussion, in which it was alleged that I (or someone) had tried to repair the PTO (Permeability Tuned Oscillator) that determined the frequency, by using the wrong kind of wrench to disassemble it, making it extremely difficult to repair. I told them that I had purchased the receiver "new," and that I was not fool enough to attempt such a repair, knowing that special tools and special skills would be required. They said it was definitely a used receiver, and that some unqualified "screwdriver jockey" had nearly destroyed the PTO. They repaired it, but it was an expensive episode, and one I'm not likely to forget.

Furious, I called the dealer from whom I had purchased both units, but they denied any responsibility, insisting that the receiver was fresh from the factory. Rather than argue with them further, I bit the bullet, and deactivated the ill-fated S-Line. Then I ordered the Drake T-4XC and R-4C twins. This turned out to be a wise choice. I later sold the S-Line on an "as is" basis to a ham in Rockland County as a "tech special," at a low price. I never found out what became of that S-Line, and the Rockland County ham has since quit ham radio. I wonder why?

<><><><><><><><>

The Drake R-4C was smaller, and even better than the Collins 75S-3C. The PTO worked fine on all bands, and everything was right with the world. The bands covered were 160 through 10 meters (by adding additional crystal ranges) and sensitivity, selectivity and audio quality was, in my opinion, superior to the 75S-3C. It was a real pleasure to use.

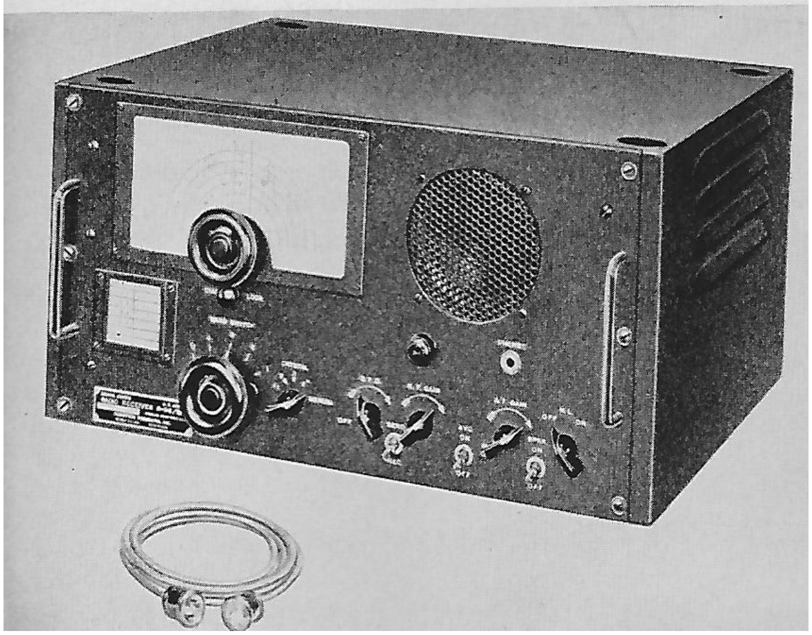
The earliest production run of the "C" receiver had a problem, though. The front end was solid state, using FETs. This design was not a success. The FET front end was notorious for being subject to severe overload. Customers complained, and the engineers at Drake worked on this problem, finally resolving it. By the time I purchased mine, however, they had re-designed the R-4C, replacing the offending FETs in favor of tubes. The result was a much better receiver, with no overload problems at all.



Drake R-4C receiver
Image: eBay

I was thoroughly enjoying the Drake "4C" line on all bands, CW and SSB, when along came another opportunity for an unusual receiver. This time, it came in the form of a "For Sale" list sent out by future FLARC member Jim Cooper, W2JC (then W2BVE). Jim and fellow FLARC member "Van," W2DLT, had been avid RTTY operators, and both of them sold various parts and equipment manuals for RTTY enthusiasts. Jim also sold military surplus of other kinds, as well. The receiver that caught my attention on Jim's list was a surplus item, covering bands of interest to me.

The receiver was an R-96A/SR, used by the U.S. Army, evidently for their fleet of ships. The "SR" attached to the R-96A nomenclature signified "Shipboard Radio." It was manufactured by Hallicrafters, and was essentially a militarized version of their model S-22R, also a marine band receiver. The R-96 was first produced in 1945, and the "A" version was introduced in 1950. [11]



Hallicrafters R-96/SR receiver (original, 1945 version)
Image: See Note [11]

The Way We Were, continued.

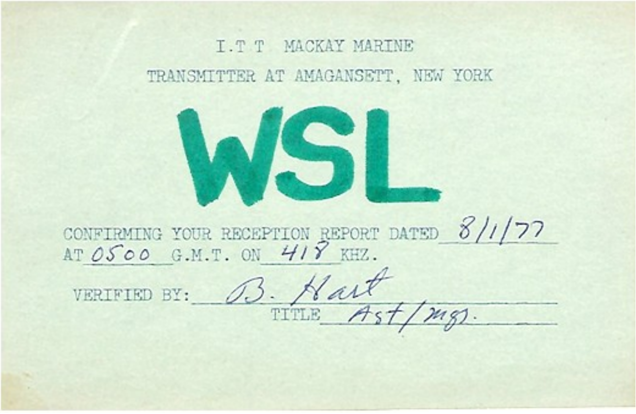
The image above shows the original 1945 version of this receiver, but I cannot find a clear image of the “A” version online. There are several PDF copies of the “A” version manual online, showing the slight difference in the front panel dial assembly. [12], [13]

This receiver operates from 115 Volts AC or DC, so it requires an external isolation transformer to operate safely. The frequency coverage is 135 kHz to 12.120 MHz in five bands, receiving CW and AM signals only. [14]

I used this receiver mainly for copying maritime CW stations on 500 kHz, the international calling and distress frequency, for many years as well as for monitoring the “working” frequencies between 400 and 500 kHz, where ships and coast stations communicated to send and receive message traffic.

One of those coast stations was Amagansett Radio, WSL, mentioned earlier in this article. Their transmitter site was actually in Brentwood. I copied one of their weather broadcasts for ships, and sent a request for a QSL. My copy was perfect, and I received not only a QSL (made by me and signed by a station official), but a job offer from the Assistant Manager of the station.

I had to decline the job offer, though, apologizing that I’m “only” an amateur operator, and not a Commercial Telegraph Licensee. On the following page is a sample log page of my DXing with the R-96A/SR on 500 kHz, dating from 1977.

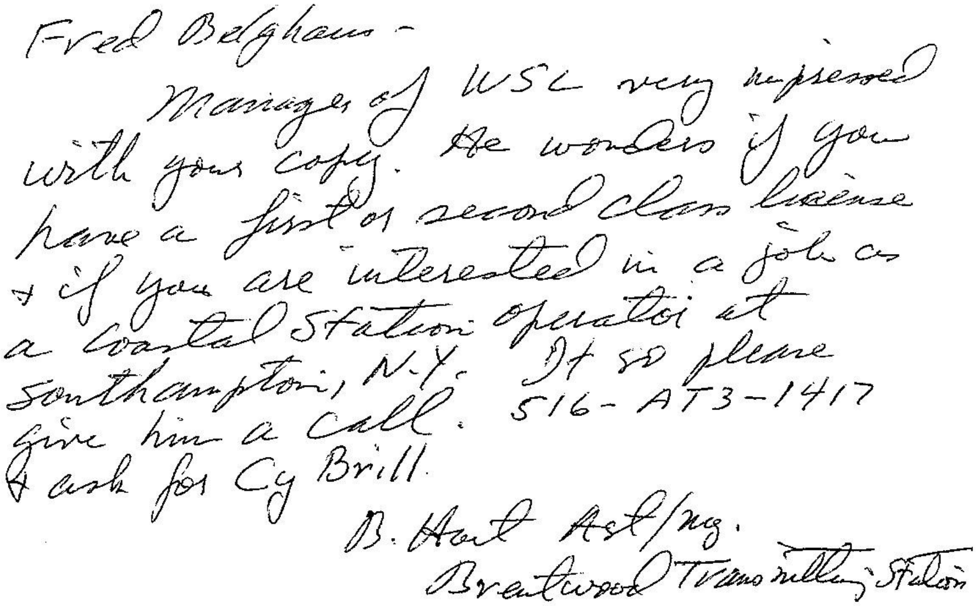


I.T.T. MACKAY MARINE
TRANSMITTER AT AMAGANSETT, NEW YORK

WSL

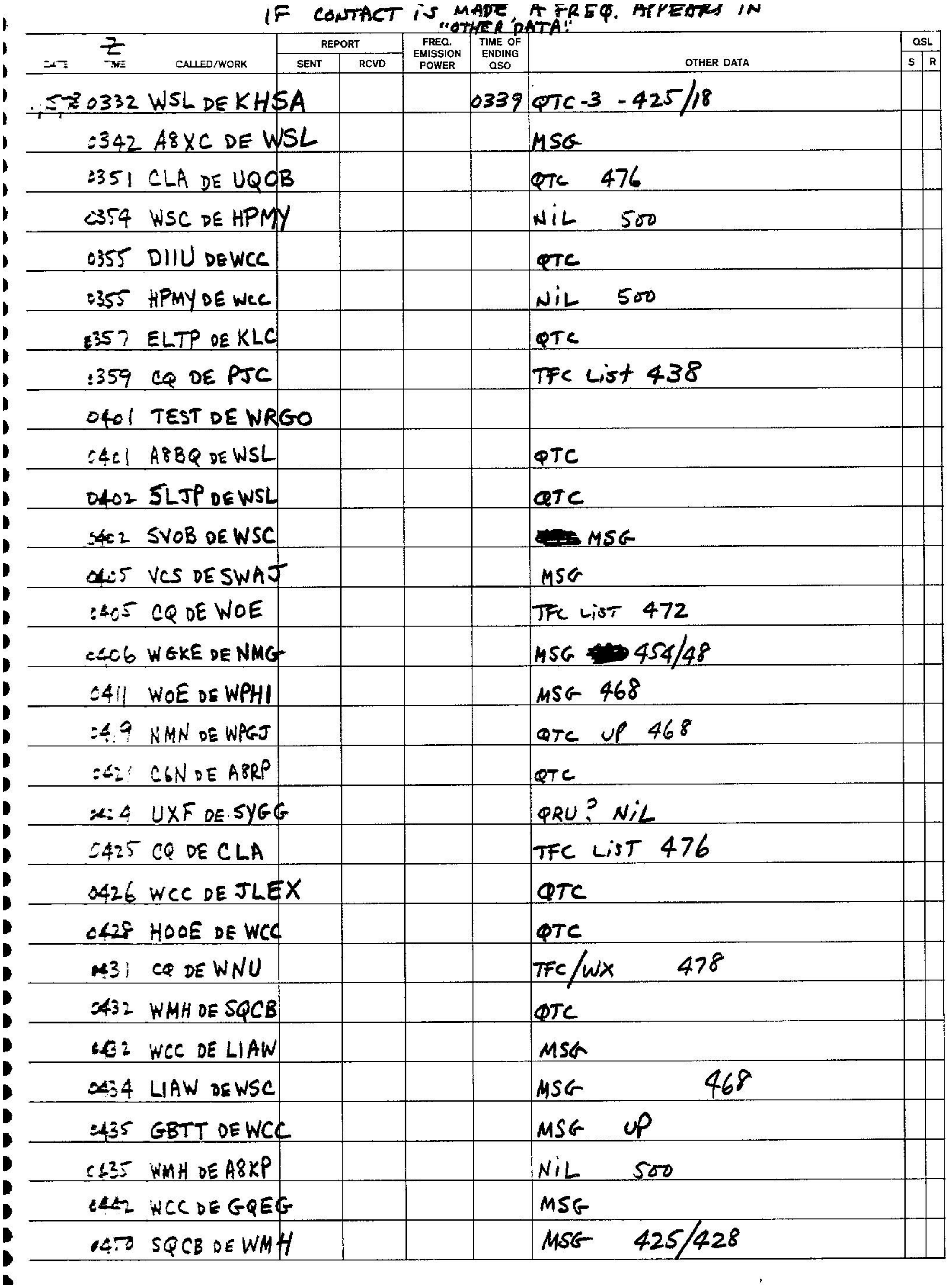
CONFIRMING YOUR RECEPTION REPORT DATED 8/1/77
AT 0500 G.M.T. ON 418 KHZ.
VERIFIED BY: B. Hart
TITLE Ast/mgr.

WSL QSL card and job offer
Images: Author’s collection



Fred Belghaus -
Manager of WSL very impressed
with your copy. He wonders if you
have a first or second class license
& if you are interested in a job as
a Coastal Station operator at
Southampton, N.Y. If so please
give him a call. 516-AT3-1417
& ask for Cy Brill.
B. Hart Ast/mg.
Brentwood Transmitting Station

The Way We Were, continued.



IF CONTACT IS MADE, A FREQ. APPEARS IN "OTHER DATA."

DATE	TIME Z	CALLED/WORK	REPORT SENT	REPORT RCVD	FREQ. EMISSION POWER	TIME OF ENDING QSO	OTHER DATA	QSL S	QSL R
5/7	0332	WSL DE KHSA				0339	QTC-3 - 425/18		
	0342	A8XC DE WSL					MSG		
	0351	CLA DE UQOB					QTC 476		
	0354	WSC DE HPMY					NIL 500		
	0355	DIIU DE WCC					QTC		
	0355	HPMY DE WCC					NIL 500		
	0357	ELTP DE KLC					QTC		
	0359	CQ DE PJC					TFC List 438		
	0401	TEST DE WRGO							
	0401	A8BQ DE WSL					QTC		
	0402	5LJP DE WSL					QTC		
	0402	SVOB DE WSC					[illegible] MSG		
	0405	VCS DE SWAJ					MSG		
	0405	CQ DE WOE					TFC LIST 472		
	0406	WGKE DE NMG					MSG [illegible] 454/48		
	0411	WOE DE WPHI					MSG 468		
	0419	NMN DE WPGJ					QTC UP 468		
	0421	C6N DE A8RP					QTC		
	0424	UXF DE SYGG					QRU? NIL		
	0425	CQ DE CLA					TFC LIST 476		
	0426	WCC DE JLEX					QTC		
	0428	HOOE DE WCC					QTC		
	0431	CQ DE WNU					TFC/WX 478		
	0432	WMH DE SQCB					QTC		
	0432	WCC DE LIAW					MSG		
	0434	LIAW DE WSC					MSG 468		
	0435	GBTT DE WCC					MSG UP		
	0435	WMH DE A8KP					NIL 500		
	0442	WCC DE GQEG					MSG		
	0450	SQCB DE WMH					MSG 425/428		

I used a standard A.R.R.L. Logbook for this project. Coast stations were logged from North and South America, Africa, and Europe. Ships were heard from many locations, from New York Harbor and up and down the Atlantic coast to the European, South American and African coasts and beyond. The receiving antenna, incidentally, was the same chain link fence and 50 foot lead-in wire used with the Rycom 2174 Frequency Selective Voltmeter on VLF and LF.

The Way We Were, continued.

Several years later, I was in need of cash, so I sold the Rycomm 2174 at a hamfest in South Jersey, and a few years after that, I gifted the R-96A/SR to a friend and serious Hallicrafters collector who had never seen one before.

In subsequent years, I became even more dedicated to logging coast and ship stations, but mainly on the HF maritime bands. I will have more to write on that topic next month.

-END OF PART 2-

Until next month, 73,
Fred W2AAB

NOTES:

[1] W5AM, "Collins R-390/390A," at: http://www.radioing.com/collins/rx08.html

[2] "Meissner AM-FM tuner model 9-1091-C," *Boatanchor Pix,* at: https://people.ohio.edu/postr/bapix/MeiAMFM9.htm

[3] "National NC-300 Amateur Band Receiver," *Universal Radio Catalog* at: https://www.universal-radio.com/catalog/commrxvr/nc300.html

[4] "Reviews for Collins 75A-4," *eHam reviews,* at: https://www.eham.net/reviews/view-product?id=2539

[5] *Wikipedia* article, "75A-4 and KWS-1," at: https://en.wikipedia.org/wiki/75A-4_and_KWS-1

[6] "Rycom Model 2174 Selective Voltmeter – Manual," Railway Communications, Inc., Raytown, Missouri, (undated).

[7] Ibid.

[8] Moman, Don, "Frequency Selective Voltmeters and their Uses in the Radio Hobby," *QRU,* at: http://www.qru.de/selective%20level%20meters.html

[9] Filippi, Mario, "Repurpose Frequency Selective Levelmeters for Ham Radio," *Radio World,* April 20, 2018, at: https://www.radioworld.com/tech-and-gear/repurpose-frequency-selective-levelmeters-for-ham-radio

[10] Hawkins, Jim (WA2WHV), "Jim Hawkins' NSS," at: http://j-hawkins.com/nss.shtml

[11] TM11-487A U.S. Army Technical Manual, "Directory of Signal Corps Equipments: Radio Communication Equipment," August, 1950, p. 127

[12] TM11-878A U.S. Army Technical Manual, "Radio Receiver R-96A/SR, June, 1950, at: https://radionerds.com/images/0/06/TM-11-878A.pdf

[13] JA1VTU Hallicrafters Manuals, at: http://ja1vtu.scm-net.or.jp/manuals/Hallicrafters/Manuals/Hallicrafters_R96A%20HF%20Tranciever_Service%20Manual.pdf

[14] Ibid, Note [11].

What Is It? – Answer To Last Month's Question

By: Fred Belghaus W2AAB

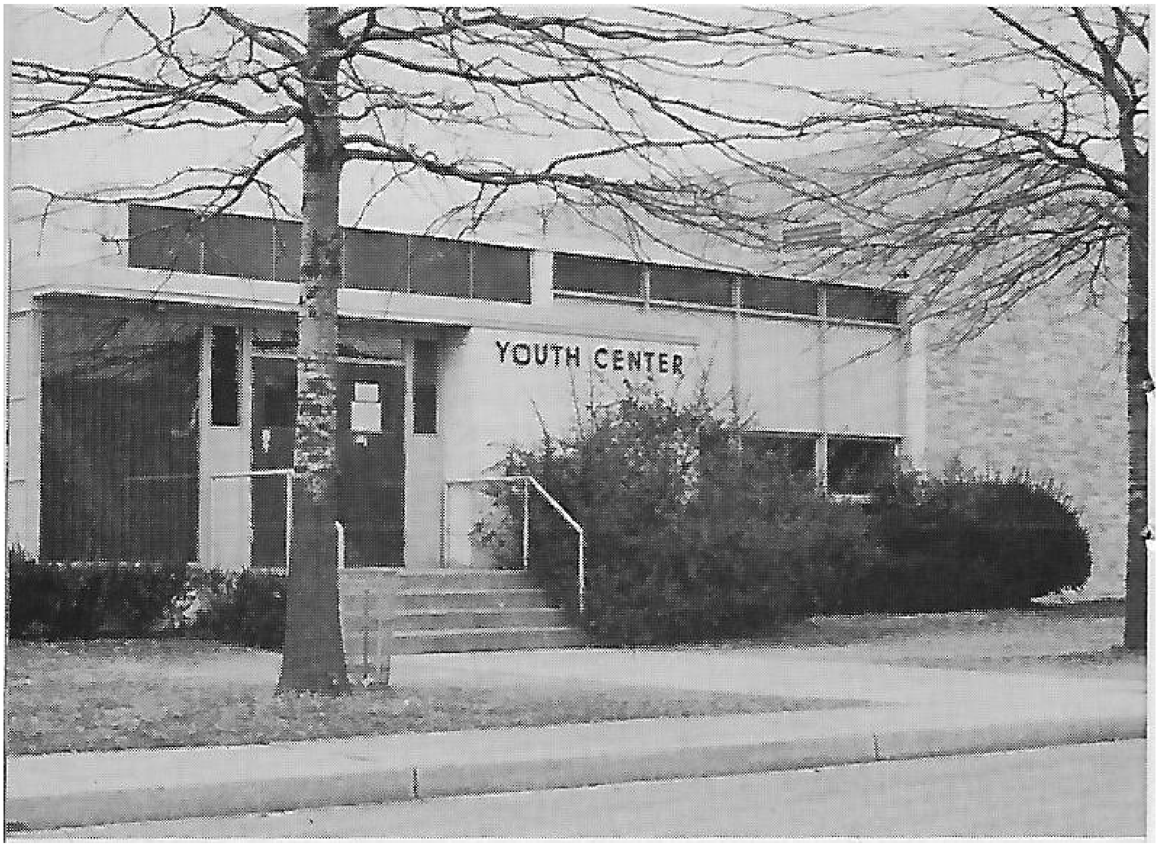


Image: Community Guide and Membership Directory, Fair Lawn Chamber of Commerce, 1976

Does this look vaguely familiar? It should.

It was the Fair Lawn Youth Center, originally built around 1960 as a smaller structure, and then known as the "Youth Canteen." It was later rebuilt in the form shown in the picture.

It is located at the end of 20th Street at the corner of Kipp Street.

It was renovated again, and although it looks quite different today, it is now the Fair Lawn Community Center, and the home of the Fair Lawn Amateur Radio Club.

73,

Fred W2AAB

What Is It? – January, 2021

By: Fred Belghaus W2AAB

- This is an electrical device
- It has a large coil, and two attachments with connecting wires that are used with it
- But .... ***what*** is it?

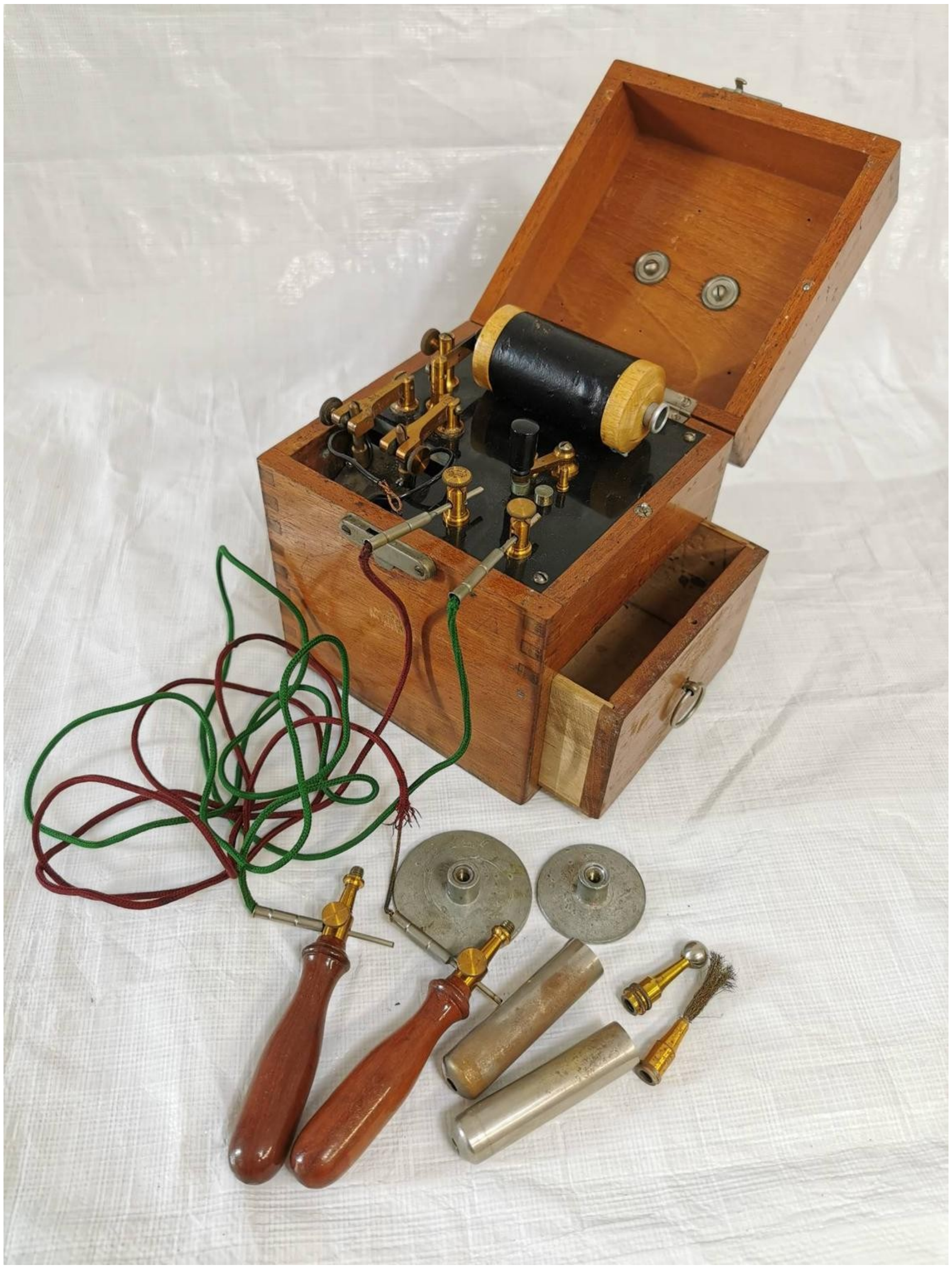


image: etsy.com

Look for the answer next month !

Ed - itorial : Out with The Old

Well, we did it. 2020 is now history.
It took a while, yes?

We are all looking forward to 2021 with the hope that Covid-19 will begin to be an event that occurred in the rear-view mirror, but our eyes and instincts tell us that revival will be a slow process. We know now for certain that the future will not look like the past; life has changed both subtlety and dramatically for many.

As a club, 2021 may be even more challenging than 2020 was. As FLARC'ers we have held together but the new year may place a strain on "togetherness" as time passes and our interests and our personal contacts adapt to a new normal. For many there will be a reluctance to return to the clubhouse when it does open for safety reasons and we may face constraints on our activities. Member renewals hopefully will not be an issue as the club has attempted to provide both social and hobby-specific value for many of us.

There are several things that we will need to focus on this year in continuing to be successful. We will need to make the club even more virtual to keep in contact with those who will remain isolated by virus concerns. The ability to create a dynamic hybrid club model of both in-person and virtual member interaction is a skill we currently do not have. We will need more and new volunteers to step forward to continue to grow the many SIG's and other future activities we will need to meet member needs. There will be other black swans or wild cards in the coming year to be sure. But our strength is that we have the size, talent, and member enthusiasm to continue to grow this club.

February 19th gives us the opportunity to discuss the future we want when we review the 2021 Member Survey as a monthly Zoom event. If you have not completed it yet, take a few minutes to do so.

The link is here:

https://www.surveymonkey.com/r/R8NKJW8

So goodbye 2020. Happy New Year.

DE Ed WX2R

NA2AA and N2RJ Close Out 2020 *Kawfee Tawks* With Lively Discussion About The ARRL

With a crowd of 107 members and guests in attendance, newly appointed ARRL CEO David Minster NA2AA and Hudson Division Director Ria Jairam N2RJ led a lively hour of discussion on the future of ham radio and the League on December 15th.

Using Zoom conferencing, Minster spoke of the transition going on in Newington with a focus on a move to digital and away from traditional publishing. Citing an increasing need for video to reach younger and less print-centric audiences, Minster noted much work needed to be done in this area. The new ***On The Air*** magazine has been both a readership and advertiser success and the League is looking to build and extend the brand of publications and videos around the title. There will be a greater emphasis on YouTube and other platforms going forward.

NA2AA also spoke of the move to digital communication, citing MESH networking of particular importance. Potential hams are familiar with technology and cell phones and that is where our focus should be.

Both Ria and David noted that the League will continue its advocacy role for amateurs but he noted that the strategy will be more responsive to events for purely tactical reasons especially in the area of regulations. The Parity Act discussions will continue and will react forcefully to any FCC effort in spectrum issues.

All in all, the pandemic has been difficult for both hams and the League but membership and interest are up and that can be a positive springboard for the new year.

David also took a few minutes to speak of his early ham career in north Jersey and his visiting FLARC over the years at the Old Library Theatre. He knows many hams in the club and was glad to be able to speak to us (and the Hudson Division) early in his tenure, despite a busy schedule.

A great evening and a great close to another year of monthly speakers at FLARC.

Club Members Uphold FLARC Honor In 2020 NJ QSO Party

While the clubhouse was closed, the NJQSO Party went on in September.

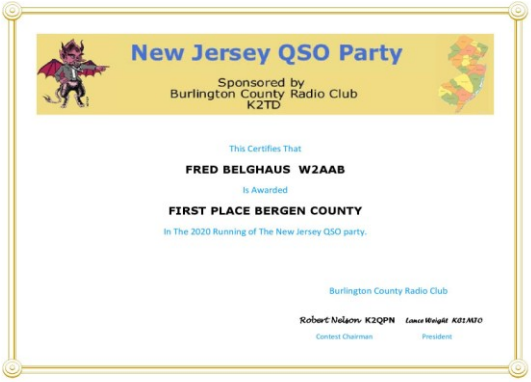
While the club did not win this year, three FLARC’ers took honors for winning in their respective counties —

- Fred W2AAB (Bergen),
- Bob N2SU (Passaic) and
- Karl W2KBF (Gloucester).

- Noel W2MSA took a second in Bergen.

Congratulations!

BTW: This is the **8th** time N2SU has won Passaic County (73, 75-78, 80-81, 2020).



New Jersey QSO Party

Sponsored by
Burlington County Radio Club
K2TD

This Certifies That

FRED BELGHAUS W2AAB

Is Awarded

FIRST PLACE BERGEN COUNTY

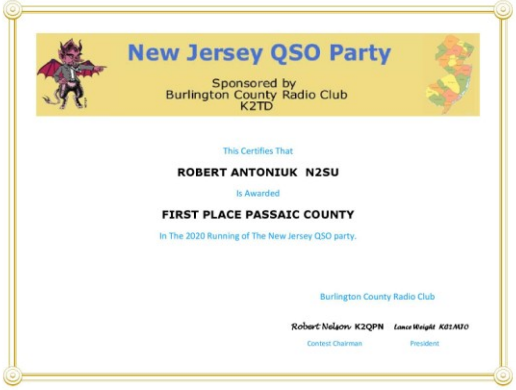
In The 2020 Running of The New Jersey QSO party.

Burlington County Radio Club

Robert Nelson K2QPN Lance Weight K01MJO

Contest Chairman President

Fred W2AAB



New Jersey QSO Party

Sponsored by
Burlington County Radio Club
K2TD

This Certifies That

ROBERT ANTONIUK N2SU

Is Awarded

FIRST PLACE PASSAIC COUNTY

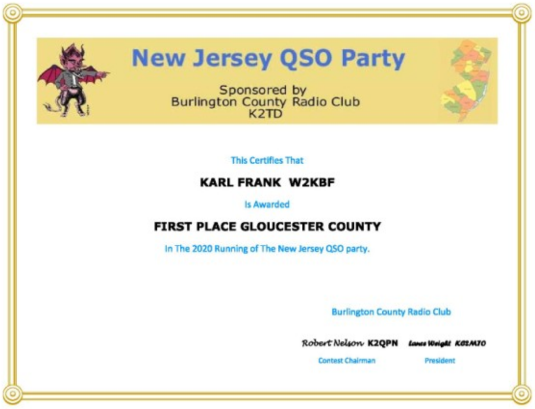
In The 2020 Running of The New Jersey QSO party.

Burlington County Radio Club

Robert Nelson K2QPN Lance Weight K01MJO

Contest Chairman President

Bob N2SU



New Jersey QSO Party

Sponsored by
Burlington County Radio Club
K2TD

This Certifies That

KARL FRANK W2KBF

Is Awarded

FIRST PLACE GLOUCESTER COUNTY

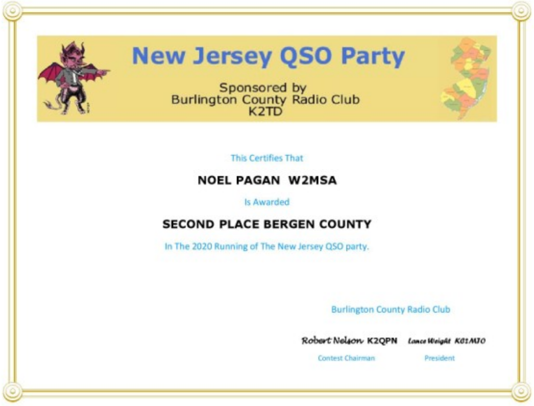
In The 2020 Running of The New Jersey QSO party.

Burlington County Radio Club

Robert Nelson K2QPN Lance Weight K01MJO

Contest Chairman President

Karl W2KBF



New Jersey QSO Party

Sponsored by
Burlington County Radio Club
K2TD

This Certifies That

NOEL PAGAN W2MSA

Is Awarded

SECOND PLACE BERGEN COUNTY

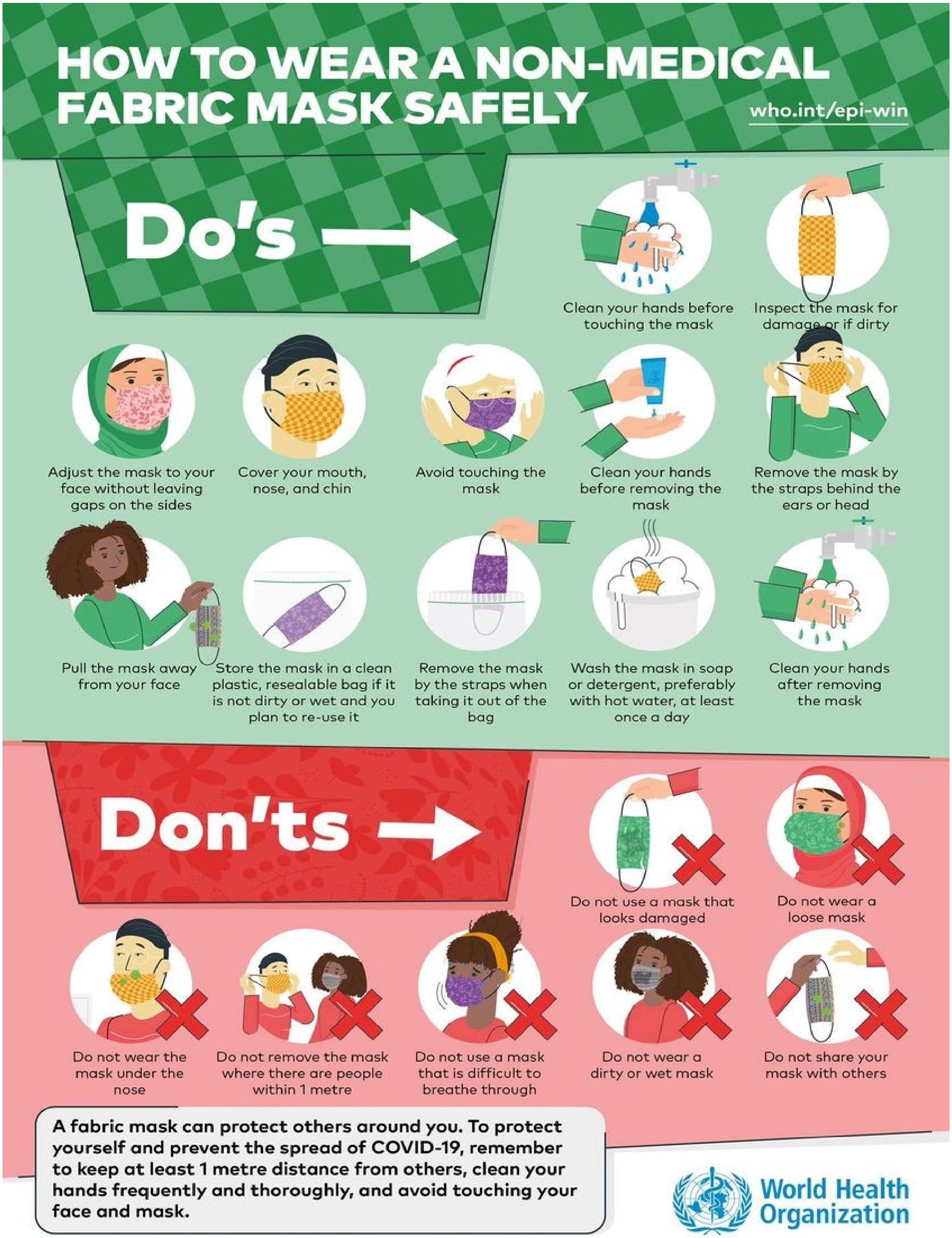
In The 2020 Running of The New Jersey QSO party.

Burlington County Radio Club

Robert Nelson K2QPN Lance Weight K01MJO

Contest Chairman President

Noel W2MSA



HOW TO WEAR A NON-MEDICAL FABRIC MASK SAFELY

who.int/epi-win

Do's →

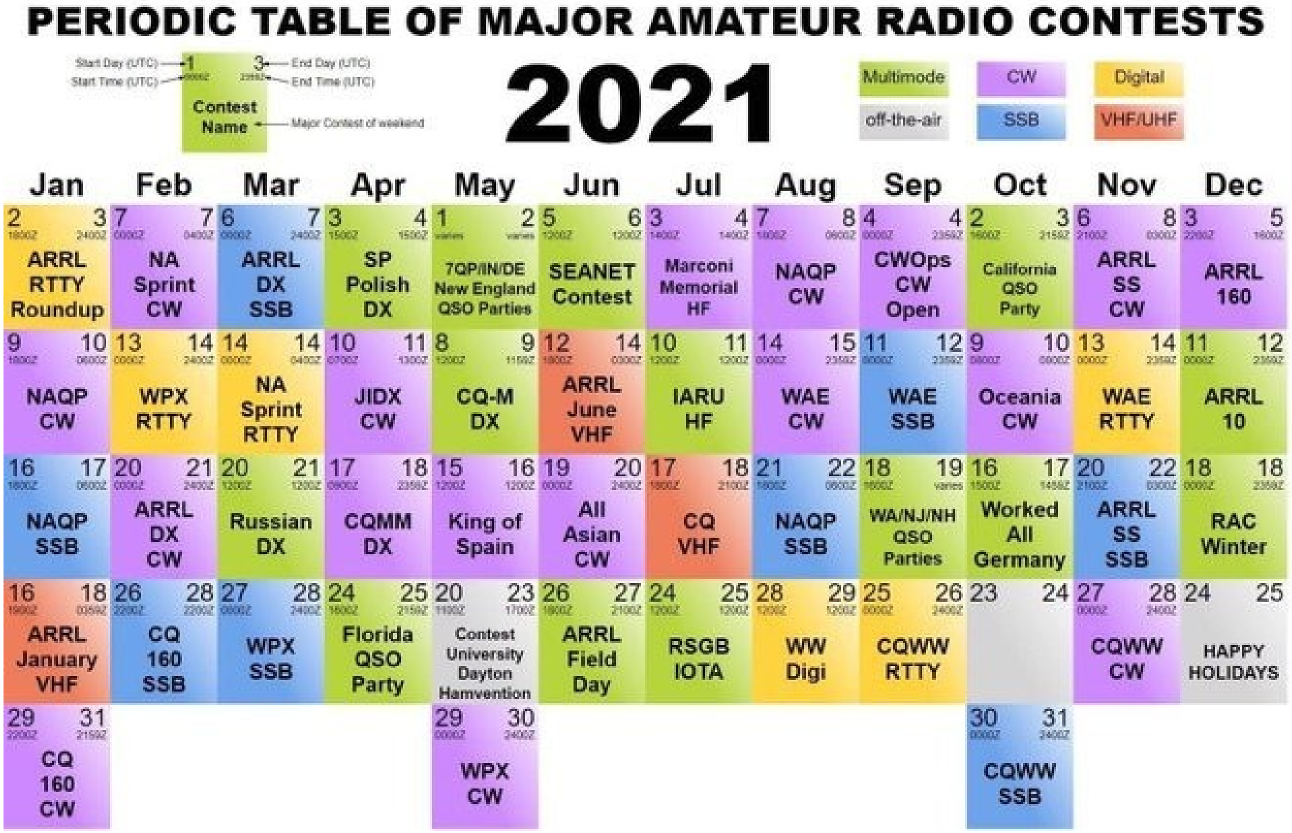
- Clean your hands before touching the mask
- Inspect the mask for damage or if dirty
- Adjust the mask to your face without leaving gaps on the sides
- Cover your mouth, nose, and chin
- Avoid touching the mask
- Clean your hands before removing the mask
- Remove the mask by the straps behind the ears or head
- Pull the mask away from your face
- Store the mask in a clean plastic, resealable bag if it is not dirty or wet and you plan to re-use it
- Remove the mask by the straps when taking it out of the bag
- Wash the mask in soap or detergent, preferably with hot water, at least once a day
- Clean your hands after removing the mask

Don'ts →

- Do not use a mask that looks damaged
- Do not wear a loose mask
- Do not wear the mask under the nose
- Do not remove the mask where there are people within 1 metre
- Do not use a mask that is difficult to breathe through
- Do not wear a dirty or wet mask
- Do not share your mask with others

A fabric mask can protect others around you. To protect yourself and prevent the spread of COVID-19, remember to keep at least 1 metre distance from others, clean your hands frequently and thoroughly, and avoid touching your face and mask.

World Health Organization



PERIODIC TABLE OF MAJOR AMATEUR RADIO CONTESTS

2021

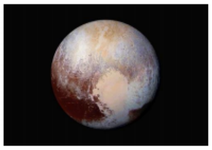
Start Day (UTC) 1
Start Time (UTC) 0000Z
End Day (UTC) 3
End Time (UTC) 2359Z
Contest Name
Major Contest of weekend

🟩 Multimode · 🟪 CW · 🟨 Digital · ⬜ off-the-air · 🟦 SSB · 🟥 VHF/UHF

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
🟨 2 1800Z – 3 2400Z ARRL RTTY Roundup	🟪 7 0000Z – 7 0400Z NA Sprint CW	🟦 6 0000Z – 7 2400Z ARRL DX SSB	🟩 3 1500Z – 4 1500Z SP Polish DX	🟩 1 varies – 2 varies 7QP/IN/DE New England QSO Parties	🟩 5 1200Z – 6 1200Z SEANET Contest	🟪 3 1400Z – 4 1400Z Marconi Memorial HF	🟪 7 1800Z – 8 0600Z NAQP CW	🟪 4 0000Z – 4 2359Z CWOps CW Open	🟩 2 1600Z – 3 2159Z California QSO Party	🟪 6 2100Z – 8 0300Z ARRL SS CW	🟪 3 2200Z – 5 1600Z ARRL 160
🟪 9 1800Z – 10 0600Z NAQP CW	🟨 13 0000Z – 14 2400Z WPX RTTY	🟨 14 0000Z – 14 0400Z NA Sprint RTTY	🟪 10 0700Z – 11 1300Z JIDX CW	🟩 8 1200Z – 9 1159Z CQ-M DX	🟥 12 1800Z – 14 0300Z ARRL June VHF	🟩 10 1200Z – 11 1200Z IARU HF	🟪 14 0000Z – 15 2359Z WAE CW	🟦 11 0000Z – 12 2359Z WAE SSB	🟪 9 0800Z – 10 0800Z Oceania CW	🟨 13 0000Z – 14 2359Z WAE RTTY	🟩 11 0000Z – 12 2359Z ARRL 10
🟦 16 1800Z – 17 0600Z NAQP SSB	🟪 20 0000Z – 21 2400Z ARRL DX CW	🟩 20 1200Z – 21 1200Z Russian DX	🟪 17 0900Z – 18 2359Z CQMM DX	🟪 15 1200Z – 16 1200Z King of Spain	🟪 19 0000Z – 20 2400Z All Asian CW	🟥 17 1800Z – 18 2100Z CQ VHF	🟦 21 1800Z – 22 0600Z NAQP SSB	🟩 18 1600Z – 19 varies WA/NJ/NH QSO Parties	🟩 16 1500Z – 17 1459Z Worked All Germany	🟦 20 2100Z – 22 0300Z ARRL SS SSB	🟩 18 0000Z – 18 2359Z RAC Winter
🟥 16 1900Z – 18 0359Z ARRL January VHF	🟦 26 2200Z – 28 2200Z CQ 160 SSB	🟦 27 0000Z – 28 2400Z WPX SSB	🟩 24 1600Z – 25 2159Z Florida QSO Party	⬜ 20 1100Z – 23 1700Z Contest University Dayton Hamvention	🟩 26 1800Z – 27 2100Z ARRL Field Day	🟩 24 1200Z – 25 1200Z RSGB IOTA	🟨 28 1200Z – 29 1200Z WW Digi	🟨 25 0000Z – 26 2400Z CQWW RTTY	⬜ 23 – 24	🟪 27 0000Z – 28 2400Z CQWW CW	⬜ 24 – 25 HAPPY HOLIDAYS
🟪 29 2200Z – 31 2159Z CQ 160 CW				🟪 29 0000Z – 30 2400Z WPX CW					🟦 30 0000Z – 31 2400Z CQWW SSB		

Please pass this around to your club members!

FLAGSTAFF, AZ
I ♥ PLUTO
SPECIAL EVENT
IHEARTPLUTO.ORG



ANNOUNCING A 10 YEAR AMATEUR RADIO SPECIAL EVENT

The Northern Arizona DX Association will be conducting a 10-year special event countdown to the 100th anniversary of the discovery of Pluto by Clyde Tombaugh at Lowell Observatory in Flagstaff, Arizona. This will be an annual 9 day event held each February through the 2030 anniversary with the inaugural event February 13-21, 2021 (UTC).

Club members will be operating from Lowell Observatory and their home QTHs using the special event callsign **W7P**. Each year of the countdown will feature a new QSL card with subjects centered around either Clyde Tombaugh, his discovery, the moons of Pluto, some of his early telescopes, lenses used, etc., with lots of great information.

A beautiful color certificate suitable for framing, with endorsement stickers for each year worked during the event will be available.

Each year, Doug Tombaugh(N3PDT), Clyde Tombaugh's nephew, will be operating during the event as **W7P/0** and a contact with Doug or his team counts as an additional endorsement on the certificate.

Club members will be operating on as many bands and modes as time and conditions permit. The annual QSL cards, the event certificate, and more information about the event can be found on our club website at www.nadxa.com.

73
Northern Arizona DX Association
Flagstaff, Arizona

DMR Special Interest Group Update

The DMR SIG is going well.

We are still using TalkGroup 310015 on Tuesday evenings at 7:00 to always be done before the NorthStar Digital Net which is at 8:00 on TalkGroup 31630.

To get onto either of these nets a HotSpot is required at this time. Those going from one net to the other, don't forget to disconnect from one TalkGroup with TalkGroup 4000 before proceeding to the new TalkGroup. This is a DMR HotSpot thing. Come join the DMR SIG to learn more.

We hope that FLARC will soon have its own official DMR TalkGroup.

Updates for the Open GD77 radio firmware have also been posted to the DMR SIG. For less than $100 you can get into DMR with the GD77.

There is a special firmware written by hams to make the radio very easy to use. It also does 2M / 440 analog and DMR.

Hot spots for less than $70 can also be made with the help of the FLARC DMR SIG. Come join in on the DMR excitement at the FLARC DMR SIG! Use the link in the left sidebar of the main FLARC website to sign up for the SIGs.

For those interested, join in on all the DMR excitement! Contact Bob H.

KD2BKD@optonline.net

for information on joining.

Or just go to the club website FairLawnARC.org and use the "Join Special Interest Group(s)" link on left.

Radio Monitoring Special Interest Group Update

Tuning The Bands

Ed Efchak WX2R

Happy New Year!

Let us hope the DX will roll in for you in 2021. I have been doing a bit of monitoring and have been thinking about how much my access to this part of the hobby has changed.

Everyone says that there is much less to listen to and, for me, it is true. The big international guns of the past are gone, and my lack of foreign language proficiency (especially Spanish) is a hindrance to listening for content on the bands. I do a lot of listening to China Radio International to try to decipher their messaging to various target audiences. A very subtle Radio Moscow rolled forty years forward. They are all over the bands and worth time for a rather interesting perspective.

What also has changed is the access to information. In the old days, the WRTH was my go-to source but the internet has made it my source for contact information more than anything. My look-up source now is www.short-wave.info for basic information. I also use

https://www.radioreference.com/

as a look-up to find things quickly.

My email box has daily updates from the "Hard Core DX" group which is great for Glenn Hauser's daily SWL roundup. Yes, he is still around and for me sort of sets the tone for what is out there daily.

My mailbox has DX News stuffed in it every two weeks and a thanks to N2SU for leading me back to it after many years. Focused on domestic AM DX'ing, it is a solid source of what is out there and what is changing.

On my reading list is Gayle Van Horn's Global Radio

Continued on page 59.

Stealth Installation of End-fed Antenna

By Bob Holstrom – KD2BKD

Last year, at a BARA kit night, I built an End-fed Antenna – with "elmering" from Steve, WI2W.

It has a 49:1 Un-un (unbalanced to unbalanced transformer) with the following twists.

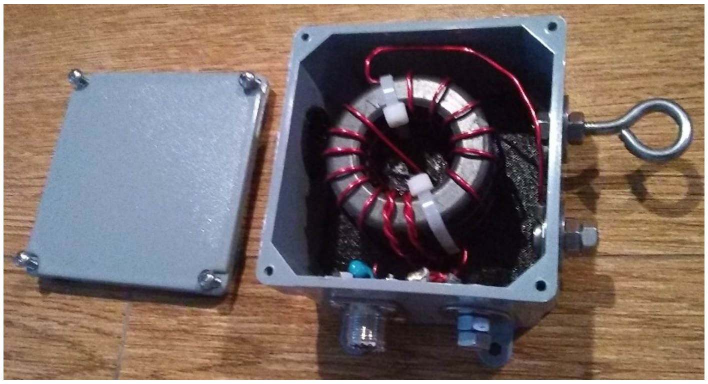
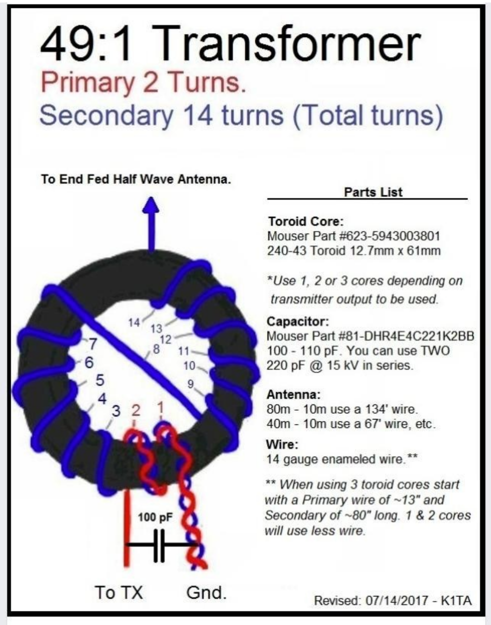


Figure 2



49:1 Transformer

Primary 2 Turns.

Secondary 14 turns (Total turns)

Parts List

Toroid Core:
Mouser Part #623-5943003801
240-43 Toroid 12.7mm x 61mm

**Use 1, 2 or 3 cores depending on transmitter output to be used.*

Capacitor:
Mouser Part #81-DHR4E4C221K2BB
100 - 110 pF. You can use TWO 220 pF @ 15 kV in series.

Antenna:
80m - 10m use a 134' wire.
40m - 10m use a 67' wire, etc.

Wire:
14 gauge enameled wire.**

*** When using 3 toroid cores start with a Primary wire of ~13" and Secondary of ~80" long. 1 & 2 cores will use less wire.*

Revised: 07/14/2017 - K1TA

Figure 1

Recently I had some tree trimming done and had the crew put up two pulleys with ropes in the trees 30+ feet high. The trees are 80 feet from each other.

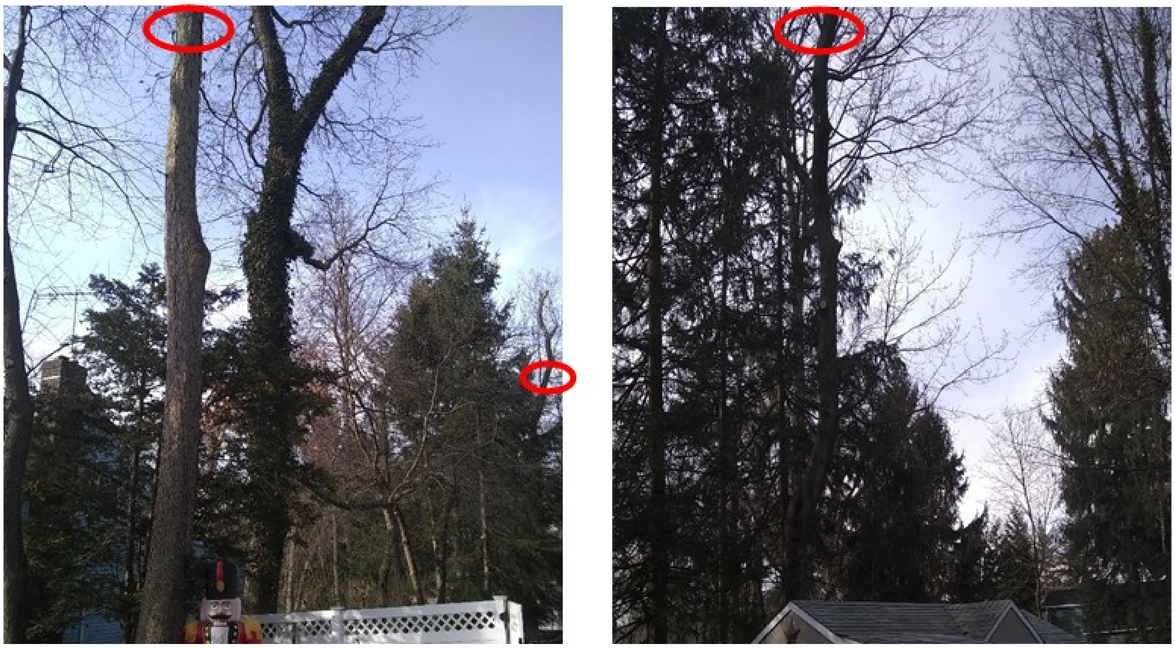


Figure 3

Bob Holstrom – KD2BKD, continued.

Now to mount the un-un box. I did not want it hanging or screwed into a tree, so I decided to put it on a 4" x 4" post, 2 feet down. Also, because it will be connected to a 100-watt transceiver, it is on the post 8 feet above ground for safety.

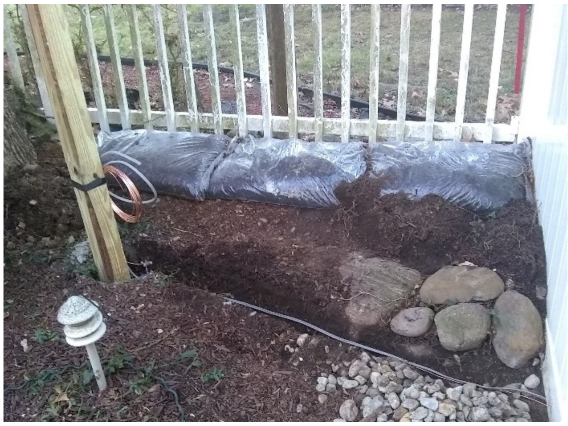


Figure 4

At the Virtual HAM Expo 2020 I took notes and screen shots of how to ground and bond antennas.

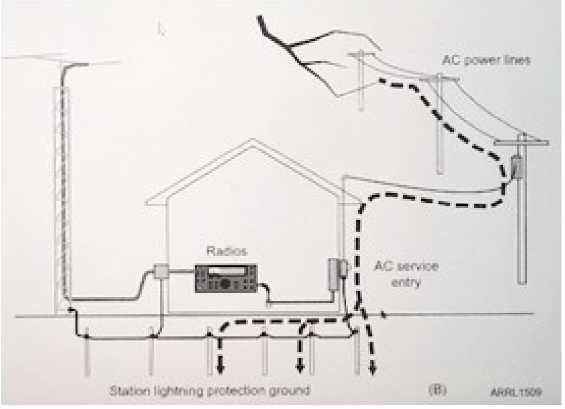


Figure 5

The LMR-400 coax is under ground for a total stealth look. Ground wire also goes between the un-un box to an 8ft ground rod at the base of the post & then to another 8ft ground rod at the entry point to the house, with 8-gauge solid wire.

For more detail of the post, see Figure 8.

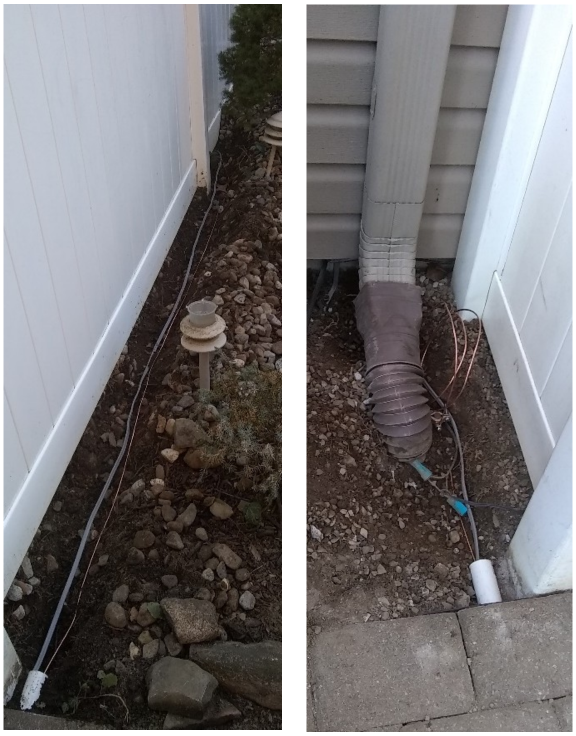


Figure 6

Now that the coax and ground wires are all underground, I needed to make the end-fed box and the 132 feet of 16 gauge wire stealthy. My solution for the box was to build a birdhouse around it! Even though the wire is black, I used Camouflage paint to make it more difficult to see. Where the wire comes out of the birdhouse, I added non-metallic faux ivy for the first 12 feet going up. The faux ivy covers the 6-turn inductor and connection point into the end-fed box.

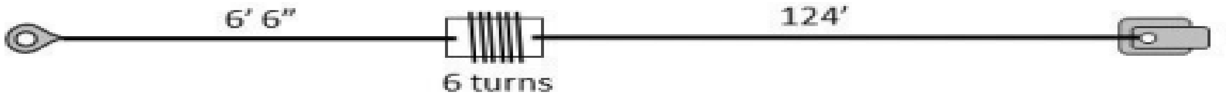


Figure 7

Bob Holstrom – KD2BKD, continued.

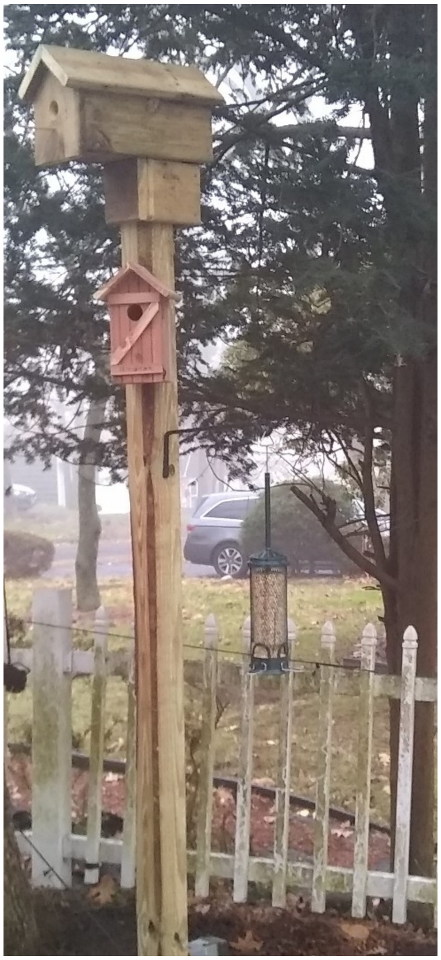


Figure 8

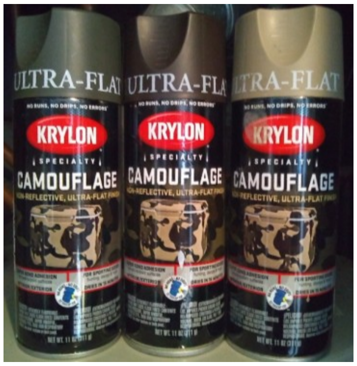


Figure 9

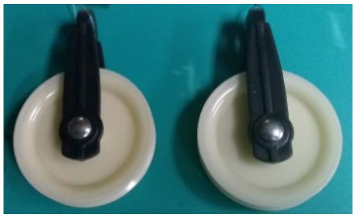


Figure 10

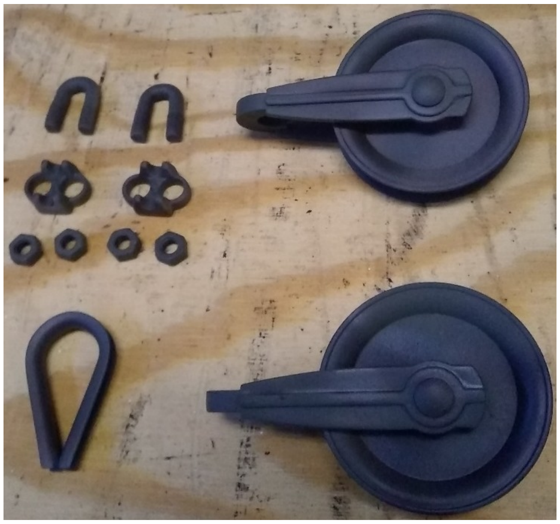


Figure 11

Now I just have to get that wire up in the trees after the snow melts.

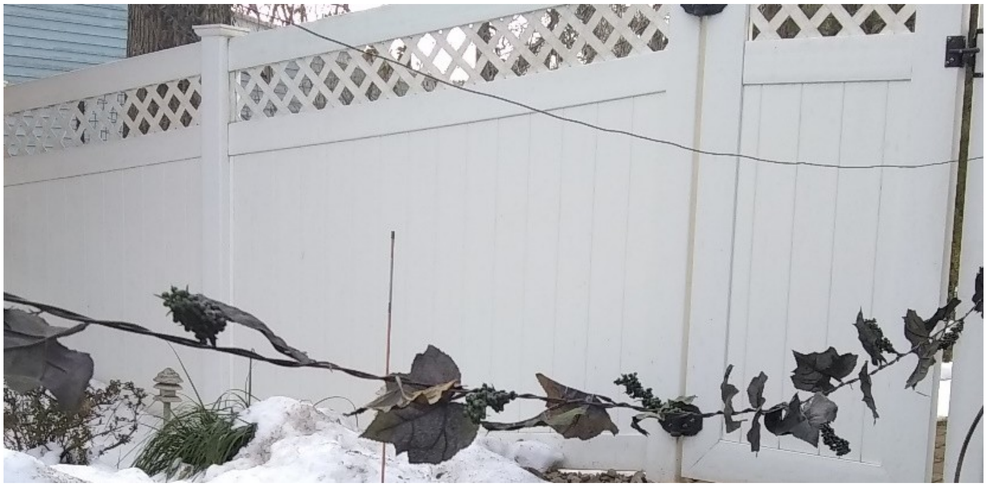


Figure 12

Letter to The Editor

Your December Resonator was disappointing in that it participates in continuing the scamdemic.

Covid is just a flu. The same you might have in a bad flu season. But no more than that. Your Resonator spent too much space on the Covid. And recommends things we never did for previous flu years. The worst thing is to advise people to test. One should not test unless one is in the ER with symptoms. We never had well people test for a flu before and we should not now.

This is the only flu which one has to take a test for to see if they have (had) it. The worst part of testing is that liberal left wing elected officials use the test results to scare people with 'surges in cases", which are just more test results and not hospitalizations or deaths. Those numbers are low. By the way, no flu comes back for a second season. The mandates were put in place to continue to scare people.

Masks are a prime example. Masks are mandatory not because they work, they don't, but because they keep the fear and the virus in the minds of everyday people. No well person should have to social distance or wear a mask. No business should have to have limitations or be forced to close. And now they want to scare people with a second wave. Its just a second wave of fear so as to control people.

The governors of New York and New Jersey should be arrested for wrecking their economies. Stop being so Afraid. Funny how Republican governors have lifted restrictions. You need to stop being part of the problem, part of the scare. Stop participating in the Scamdemic.

Jose N2LRB
December 8, 2020

Used with permission

FLARC Membership 2016 to 2021

The year closed with 164 paid members, a very slight decrease for the first time since we started counting in our 60th anniversary year.

We are fortunate to have held our membership despite the pandemic and look forward to growing the club in 2021.

Please renew for 2021 now!!

January 1	Paid Members
2021	164
2020	167
2019	145
2018	121
2017	108
2016	78

FLARC Member Count Continues To Grow

Despite the pandemic, FLARC continues to maintain its membership. So far we've added seven new members since dues closed in May. As we go to press the number is now at or about 164; just 3 fewer than our 2019 close of 167.

164!!

PAY YOUR DUES NOW!

and help keep that number for 2021.

Please makes checks ($25) payable to "Fair Lawn Amateur Radio Club" and send them to:

Bruce Kalogera NJ2BK
163 Meadow Lane
Secaucus, NJ 07094

One morning on W2NPT…

I keep the W2NPT repeater on in the background most mornings and usually it is as quiet as a graveyard. So, on Monday 4 January at 1030 my ears perked up when I heard "Connected… OE2WUM."

I called back. It was indeed from Austria—Chris from Salzburg to be exact. How did he get to the mighty 145.470? It turns out that he has been spending his time during the COVID-19 lockdown on Echolink as well as HF and has found an interesting time-killer. He is trying for WAS via Echolink! When he got to our repeater, he needed only NJ and Delaware; he has been at it about nine months. He asked for a paper QSL and perhaps a postcard of Fair Lawn (yes, one is available at CVS) and he would send his along with some pix of Salzburg.

Quite a nice guy. We exchanged notes about living near New York and Salzburg (I had been there about a decade ago) and he promised he would check back again.

While it is not a facet of the hobby I would participate in, the conversation is what ham radio is all about. Hopefully, he will check back in.

Ed WX2R

Note: OE2WUM's web page is at

https://www.qsl.net/oe2wum/englisch/en-aboutme.html

Another saga of the Hex Beam

by Jim Cooper, W2JC

Fri, 25 Dec 2020 03:03 est

A Christmas eve winter storm is upon us in NNJ; the wind is gusting strongly - forecasts say expect 60mph gusts. The hex is twisting back and forth about ten or fifteen degrees, but I don't see any movement of the tower at all. It's 3 a.m., but the little LED light I put on the end of each hex spreader now make it possible to see the hex in the dark!

I can't tell if the hex is rotating on some slack in the rotator (I don't see any change in the rheostat or direction reading on the control box) or if the mounting bracket at the top is a bit loose (I sure hope not) ... maybe some nice day I can get someone to watch me (safety) and I'll climb to the top and check it out. ;) [not tonight, for sure! too many roofs being blown off houses – and trees mating with houses, and transformers bursting into flames tonight).

The vertical is flapping back and forth by about thirty degrees in the gusts.

I'm watching the "Santa Tracker" on 60wpm RTTY audio over the internet using MMTTY to decode... and considering how this storm is going, I think I will spend the rest of Christmas Eve UP and awake and playing computer stuff (as long as the power stays on). I sure don't want to be in bed if something bad happens. This storm would be bad in the daylight, but in the dark of night it is bad news.

oh oh , just had a power dim out ... second one tonight.

Looks like this mess is going to be here well into daylight.

Fri, 25 Dec 2020 05:37 est

So far, it looks like nothing serious. the wind has died down for now, but the weather map does NOT look like we are done with this monster ... but I think I am going to collapse into bed for the holiday now. ;))

Fri, 25 Dec 2020 14:30 est

Examination of the hex beam and tower from ground level indicates no problem with the tower, but there is a wire dangling from the hex beam. Further looking

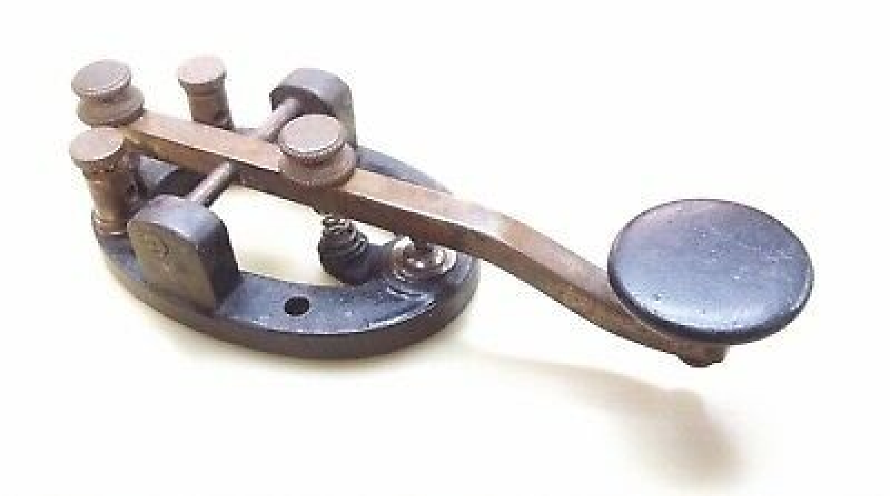
Continued on page 56.

Straight Key Night 2020

By: Fred Belghaus, W2AAB

Well, another year has come and gone, and with it the latest annual Straight Key Night. The SKN rings in the New Year every January 1st, starting at 0001 UTC (7 PM local time), mainly on the HF bands. It is an opportunity to dust off your old "pump handle" and put it to use in a relaxed on-air activity.

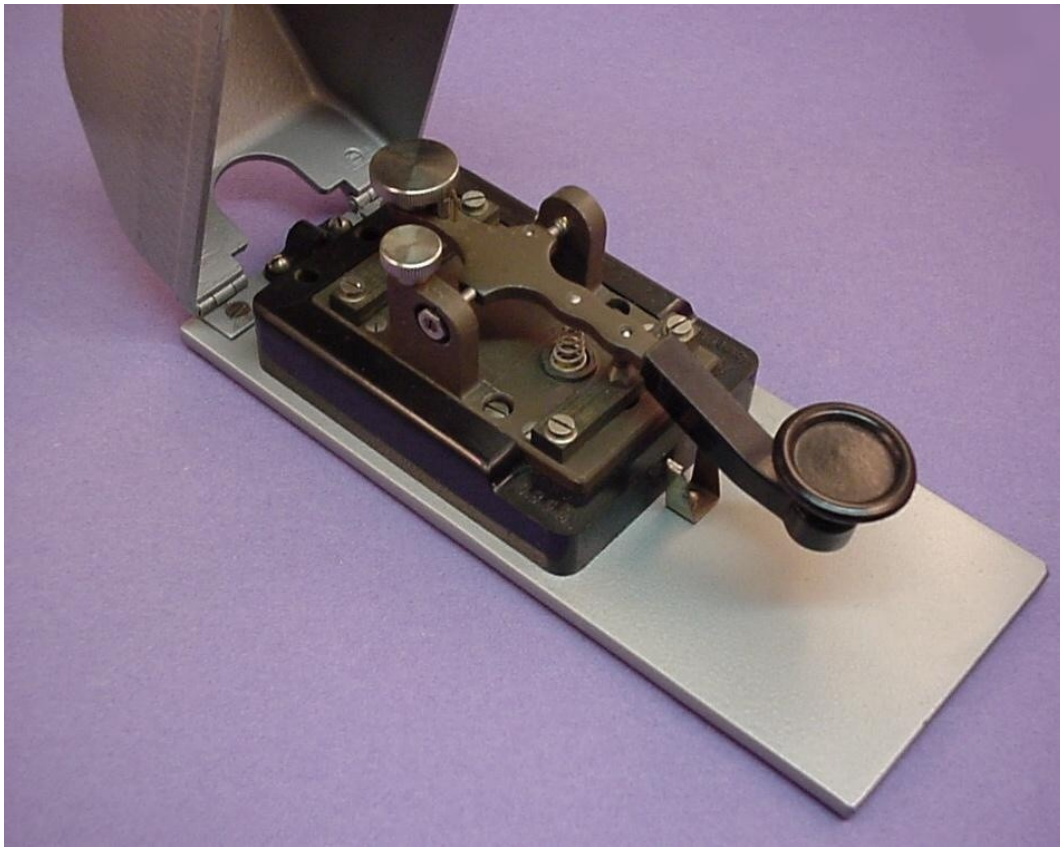
This year, I once again joined the fray, using a total of **five** different keys from my collection. The first of these was an AMCO (Adams-Morgan Co.) spark key, made about 1910 at their factory in Upper Montclair.



Adams-Morgan spark key ca. 1910
Image: picclick

This is a low-power spark key, intended for beginners using a very simple station, consisting of little more than this key, an induction coil, a homemade fixed capacitor, and a simple wire antenna. The induction coil would normally be powered by a couple of dry cells. Power levels would be very low, probably just a few Watts, or even less. The receiver would also be very simple, little more than a not very sensitive detector and a loose coupler (a pair of coils comprising primary and secondary windings), with a slider contact to permit tuning. The antenna would probably also include a counterpoise beneath it, consisting of a few wires, somewhat shorter than the antenna, serving as an RF "ground."

The second key I used was a World War II German "Junker" (pronounced YOON-ker). It is a very well designed key with micrometer-type precision adjustments. It was used by sea and land forces. This key was given to me by one of my ham uncles, who rescued it from a battle site in North Africa.



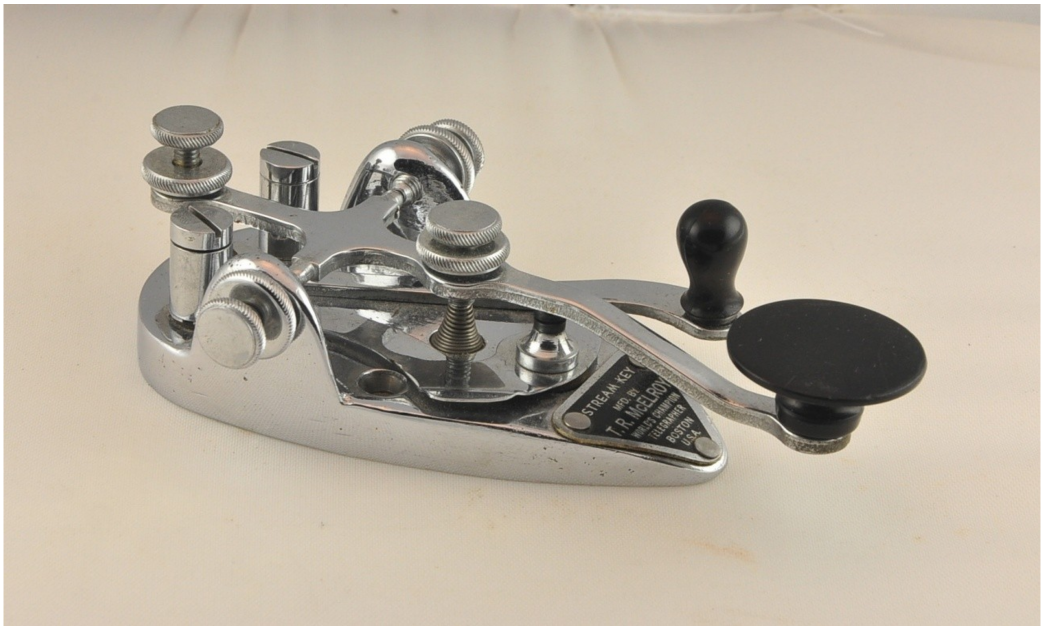
German “Junker” key
Image: Morse Express

The only difference between the image above and the key I have is that mine does not include the hinged cover. Two interesting features of this key are that it includes a Transmit-Receive switching option, allowing receiver muting while transmitting, and that its Bakelite base includes a capacitor serving as a click filter.

This key is quite comfortable to send with, but the sending knob has a depressed center that, after a while, actually becomes uncomfortable to the fingers. As far as its spring action and overall design features, it is one of the best keys ever made, in my opinion, having only that one minor flaw cited.

The third key I used was another classic design, and one of the nicest looking keys in my collection. It was the McElroy chrome “Stream Key.” This model was made in the late 1930s.

Most of the “Stream Keys” made by Ted McElroy’s plant had bases of Bakelite or cast metal, usually painted black. The chrome version is the rarest, and the most sought after by collectors. Its rounded design is inspired by the art deco objects of the period.

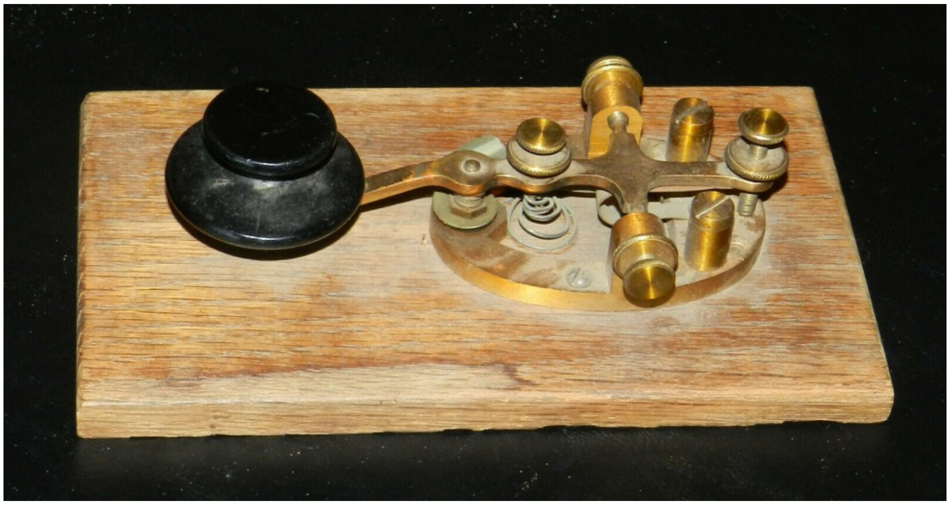


McElroy chrome “Stream Key”
Image: telegraphkeys.com

As far as comfort (which I consider the most important feature of any key), the chrome Stream Key ranks somewhere in the mid-level. It lacks a “Navy knob” beneath the standard knob, which puts more pressure on the fingers, and results in some discomfort. This key would be fine for short transmissions, or code practice at slow speeds, but for prolonged periods of sending on the air, it would cause operator fatigue.

I only used the chrome Stream Key on one QSO, and then, only for one transmission, before swapping it out for a much more comfortable key.

The fourth key used was another spark key, this time one made by well-known key manufacturer J.H. Bunnell, and dating from around 1920.



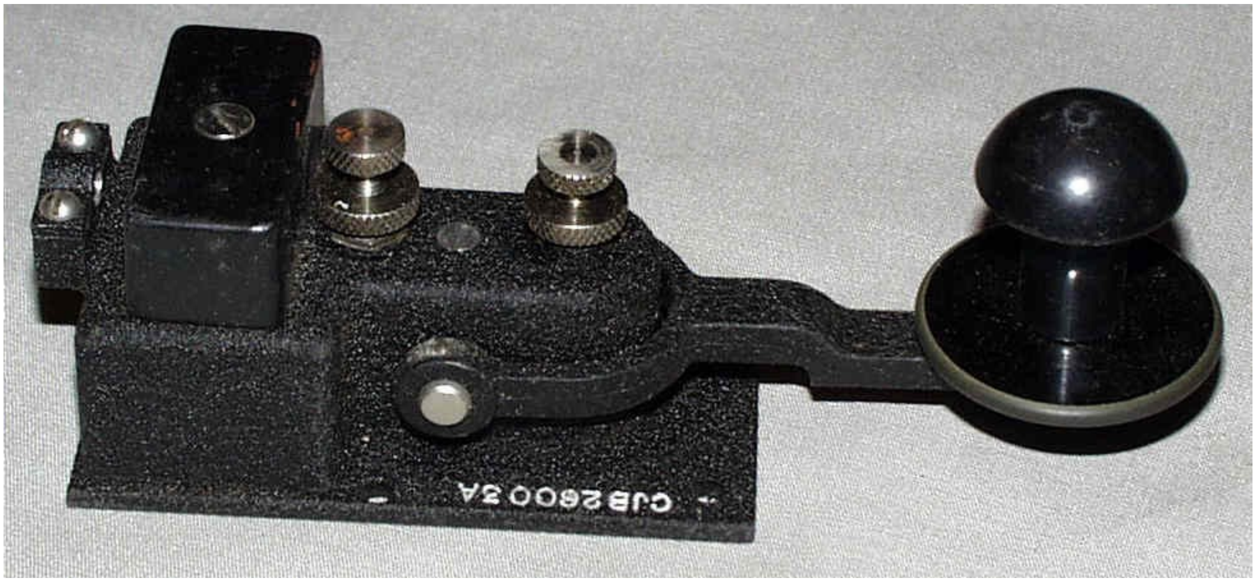
J.H. Bunnell spark key, ca. 1920
Image: eBay

This key would have been used on low to medium power spark transmitters. It is really a very nice key to use. It has the classic “Navy Knob,” which allows the operator’s fingers to rest upon it more comfortably than a standard knob, and greatly reduces operator fatigue. Mine looks a bit better than the picture above. It doesn’t have the dust on it, for one thing, and it’s mounted on an attractively finished oak board. I could send for an hour on this key without suffering the effects of a “glass arm.” I’m quite sure this spark key (which has fairly large contacts), found plenty of use also as a standard radio key long after the days of spark, chiefly by amateur operators. It’s a beauty!

As in all the examples shown here except one, none of the other keys include a “circuit closing switch.” That feature is only included on the McElroy Stream Key, which means that it was intended for both radio and landline telegraph circuits. All the others are radio keys only.

Now we come to the fifth and final key I used for Straight Key Night 2020, and it is my all time favorite of all the keys in my collection. It is not particularly rare, but lately I’ve seen prices for it go way up on the auction websites. Perhaps hams have discovered just how much of a pleasure it is to use!

It is the classic among classics, in my opinion – the World War II U.S. Navy type number 26003A “Flameproof.” This key was made by many contractors, but mine was made by J.H. Bunnell, and it is probably the best radio-telegraph key ever made in the United States.



World War II U.S. Navy 26003A “Flameproof” key made by J.H. Bunnell
Image: J.H. Bunnell & Co. website

Note the “Navy Knob,” and the compact construction. Mine is mounted on a heavy steel base, painted “Navy” gray. Similar keys of this type go back to World War I, and were first used in aircraft with spark transmitters. In those days, the reason for sealing them was to prevent sparking across the contacts igniting fumes from the aircraft’s fuel system. Some of these were also known as “bathtub” keys because their enclosed part was somewhat longer and rounded, resembling a bathtub of that era. By World War II, the basic design changed to the more compact version shown above, and it acquired a black crackle paint finish.

During World War II, these keys were used chiefly in submarines, similarly to prevent igniting fumes from fuel. They also are sealed to keep out dust, dirt, and moisture. I can vouch for their ability to keep out moisture. I have been storing my “Flameproof” in my car for months, and even after all that time, when I plugged it into the rig, it worked perfectly, with no intermittency of the contacts.

This key is a genuine pleasure to use, especially when mounted on a solid base. It will not move around on the operating table, and will still be comfortable after long periods of sending.

So, having shown you the keys I used, the next topic is who I worked, and where.

Here’s a list of my contacts, with comments added about each one. My station is a Kenwood TS-590SG running 100 Watts to a homemade 40 meter delta loop fed with 450 ohm window line, and a Johnson 250 Watt Matchbox, with output power measured on a Bird Model 43 “Thruline” SWR/Power Meter.

0236 UTC **N2AXX** Freq, 7.030 - Tom in Ramsey, NJ (FLARC member).
    Rig: Yaesu FT-901 + Amp, 500 Watts, Inverted Vee antenna.
    Key: World War II military J-38
    Comments: Nice to work you, Tom.
    My key: Adams-Morgan Spark key.

0244 UTC **W2JEK** Freq. 7.030 - Don in River Edge, NJ (BARA member).
    Rig: Yaesu FT-840 powered down to 5 Watts, end-fed antenna.
    Key: Speedx straight key
    Comments: Nice to see you, Don. Your QRP was 599+ here.
    My key: Adams-Morgan spark key.

0311 UTC **K3PI** Freq. 7.035 - Russ in Lexington, North Carolina.

Rig: Yaesu FT-520, 100 Watts, G5RV antenna. Age 63, ham 49 years.
Key: Speedx straight key.
Comments: Nice signal from NC.
You and W2JEK should start a Speedx Net.
My key: Adams-Morgan spark key, WW II German Military Junker key.

0421 UTC **KØFG** Freq. 7.055 - Fred in Sunrise Beach, Missouri.
Rig: 100 Watts, (Elecraft K3), dipole antenna.
Key: Bug (type unknown)
Comments: Licensed since 1970. Good signal.
My key: Adams-Morgan spark key.

0638 UTC **W3LPL** Freq. 3.535 – Frank in Glenwood, Maryland.
Rig: Viking Valiant (100 Watts or so), Collins 75A-4 receiver.
Key: World War II military J-38.
Comments: Frank is one of the best known hams in the world. He operates from a superstation (see his QRZ page for pictures of his antenna farm). Frank also operates a well-known network of "skimmers" on HF in many locations. He is a longtime contest and DX operator with many accomplishments, and it was an honor to meet him in the SKN.
My key: Adams-Morgan spark key.

2215 UTC **K9VKY** Freq. 7.031 – Brian in Fombell, Pennsylvania
(Beaver County, in extreme Western PA, bordering Ohio).
Rig: World War II "Spy" set, using a 6V6 oscillator driving an 807 power amplifier, running about 20 Watts output. Receiver section is a single conversion superhet with no bandpass filtering. Doublet antenna.
Key: World War II J-38. Sending speed limited by a keying relay in the "Spy" set.
Comments: My vote for the most interesting QSO in the SKN.
My keys: Adams-Morgan spark key, World War II German Junker, and McElroy chrome stream key.

2257 UTC **WB2FUV** Freq. 7.034 – Mike in Gardiner, New York (Ulster County).
Rig: Yaesu FTDX-3000, inverted vee antenna.
Key: Bencher straight key.
Comments: Age 68, ham 52 years. Retired land surveyor.
My keys: World War II US Navy "Flameproof" type made by J.H. Bunnell, and J.H. Bunnell spark key made about 1920.

2353 UTC **K2EKM** 7.039 – (Bill in Springfield, Virginia)

> Comments: Unfortunately, the band was too long for a solid QSO with Virginia by this time. Bill's signals dropped from 449 to unreadable, so I could not copy his rig or key. According to his QRZ page, Bill was originally licensed in October, 1957 in Westwood, New Jersey. I wish we could have made a go of the QSO. I could have brought him up to date on things here in Bergen County.
> My key: World War II US Navy "Flameproof."

Well, that's a wrap for Straight Key Night 2020. I have come to enjoy this annual event. It's an opportunity to sit back, relax, and enjoy a leisurely chat one-on-one with another human being which, like CW with a straight key, seems to be a dying art.

73, and Best Wishes for the New Year,

Fred W2AAB

Check Into The Wednesday Night Net !

Dave KD2MOB doesn't want to be lonely on Wednesday's and neither should you.

Why not sit in and join the fun. The net starts reasonably promptly at 7PM EST on the FLARC repeater. The more the merrier... emphasis on "more."

We could also use an additional net control for this group and give Dave a night off.

It is not hard to do and the pay is great. Email Dave or Nomar and get involved.

"D. Gotlib KD2MOB" <mrdgot@aol.com>

**FLARC Wednesday Night
Health and Welfare
Umbrella Net**

Straight Key Night at another FLARC station

FLARC's own Tom McCabe N2AXX operating CW during the ARRL's annual Straight Key Night, Jan. 1, 2021

Tom was using a 1940s era US Military Signal Corp J-38 telegraph key, a 1979 Yaesu FT-901DM transceiver, and 40m Inverted Vee antenna.

Report from Portable Ops SIG

Get your Quota of POTA - Operating portable with Parks on the Air

Steve Rosman, KA2YRA
stvrosman@gmail.com

January 8, 2021

Forward

Following is a recount of my experiences with operating ham radio in the field, especially with the Parks on the Air (POTA) program.

There is a wide range of xOTA programs. The common theme is getting OTA ... getting ON THE AIR! You can do Summits on the Air, Islands on the Air, Beaches on the Air, and more. I've even seen WMPOTA (Walmart Parking Lots on the Air)!

Special thanks to Noel Pagan W2MSA for the inspiration of his recent FLARC Kawfee Tawk and a very special shout-out to the Portable Rockstar, the late Joe Everhart N2CX. His presentation at FLARC several years ago was incredibly informative and another example of how FLARC continuously excels in bringing the best of the best to our membership. And of course, thanks to the POTA family … administrators, volunteers, activators, and hunters.

Some background

Having been licensed over 35 years ago, the peaks of my ham radio activity seemed to follow the low points of the sunspot cycles. On Labor Day weekend in 2016 I took a trip down to HRO in Delaware and purchased a Yaesu FT-817nd and portable tuner. I chose that radio for several reasons including the built-in battery, small size, multi-mode, and wideband coverage which includes HF, VHF, and UHF. My goal was to be able to operate from my home as well as portable. It was, and still is, the only rig I've purchased new, and there was a bit of a Zen challenge to go QRP.

Why do I do it? … highlights

- Fresh air and sunlight (even moonlight) is good for you
- Being able to "run" a frequency and be on this side of a pile-up is pretty cool
- Helping the hunters out there
- Getting away from the RF noise
- Getting to some beautiful places
- I could definitely use the exercise
- And the inevitable many more ...

Why do I do it? … details

To paraphrase Victor Borge who declared at a concert: "I would like to thank the audience for making this possible, and my children for making it necessary" ... I would like to thank my neighbors, the HOA, and my neighborhood for making field operations necessary and thank groups like POTA for making it possible.

I live on the first floor of a development in very close proximity to my neighbors, a water tower with police and pager antennas, a hospital with a cell site and radio system on the roof, and utility meters with built-in transmitters. And don't forget the 13,000 volt transformer on a pad right outside my window. Noisy noisy noisy and nosy nosy nosy!!!

The best I could do at home was the MFJ 1788 magnetic loop which covered 15-40 meters. Sneak that out on the terrace and it was hardly noticed. Putting out even a hamstick immediately triggered a knock on the door and complaints of interference, even if it was not connected and everyone has cable or FiOS. Stealth was key.

Happy 100th birthday to the National Parks

Though I got back on the air late in 2016, I did discover NPOTA, the National Parks on the AIr program sponsored by the ARRL. It was an awesome program to encourage and award QSOs to and from designated locations around the country. As you recall, FLARC participated with a special event station from the Paterson Great Falls National Historical Park.

My involvement at the time was minimal and not consistent, though the seed was planted. Joe Everhart's presentation helped refine my techniques and commitment.

I will admit that I got lulled into operating primarily from home using digital modes, especially FT8, thanks to FLARC for the presentation by Joe Taylor. Even though I made tons of contacts, even completed Worked All States, there was something missing.

The call of the wild

The Kawfee Tawk by Noel W2MSA came at the perfect time, and really got me serious about getting off my … chair and out into the field again. By now I had acquired a Yaesu FT857D though rarely operated it in QRO mode, even for the VHF Contests – which I have to thank my roving mentor Bob KD2BKD for his companionship and teachings.

POTA opportunities

POTA currently lists 7,462 designated federal and state locations across the country. This includes 65 in New Jersey and 636 in New York. New sites are under review to be added to the count in the US and other countries.

You can choose to operate as an activator or a hunter. An activator operates from designated sites and submits his logs. A site is considered activated when you get 10 or more QSOs in a UTC day. The other stations do not have to be POTA participants, though hunters and P2Ps are my favorites.
When doing or planning an activation you should spot yourself on the POTA site. This advises others of your park, frequency, mode, and other details. Stations who work you can update the spot, especially valuable if you're outside cell coverage. This can lead to pile-ups as the hunters line up to add you to their stats.

A hunter is the station who has a QSO with an activator. A hunter relies on the logs submitted by the activator to get credit in the POTA system. Hunters do not have to submit any logs at all. Refer to Noel's FLARC presentation [**https://www.youtube.com/watch?v=FoMFz5daSvQ**] as well as the POTA website [**https://parksontheair.com/**] for more details.

Making the most of POTA

In the past 4 years I have made over 1,000 POTA QSOs as an activator, of which over 800 were in the past 2+ months.

POTA offers a wide range of awards and recognition for both hunters and activators. In a short period of time I have earned several awards, not including the logs from yesterday which I will send in tonight:

- Activations from 29 unique sties in 3 states
- Hunter to 83 unique sites in 26 states
- 53 P2P (Park to Park) activations

Note that you can activate the same site many times; in fact there are rankings for "repeat offenders." P2P activations occur when both operators are in POTA sites and submit logs. When you call P2P you rise to the top of the pileup! I always answer calls from P2P and QRP stations first, after first clearing the really strong signals to make room.

ATNO (All Time New One) activations are getting harder and harder to find, though there are still lots of them not far from us. And when POTA adds new sites, that just increases the available options.

Double dipping and more is ok

Despite what George Costanza was told at the funeral, it is way OK to double, or even triple, dip in POTA! This occurs when you and/or the other station are operating at a QTH that is defined by two or more POTA designations. Two nearby examples are the Appalachian Trail National Scenic Trail which goes through many state parks such as Harriman and Bear Mountain in NY, and Wawayanda in NJ. The W3R (Washington Rochambeau Revolutionary) National Historic Trail goes through Bear Mountain State Park, and right down Route 202 from Suffern to Oakland and through many towns and villages.

Working within 100 feet of the trail makes you eligible for credit, and being where the trail passes through another park counts for 2 activations in one! Just submit a separate log for each.
For the night owls or early risers, remember that this is all based on the UTC day, currently 7PM to 7AM, so you could activate a site until 7PM then work the same stations after 7PM for a new activation. And of course, there are recognitions for Late Shift operations too.

RaDAR awards are for activations from multiple sites within a 24 hour period with a minimum move of 6KM. This can even be from the same park if it is large enough.

My field station

I have two backpacks, one for my QRP setup and the other QRO. Each is fully self-contained, though the QRO station relies on the 35Ah [Ampere hour] sealed lead acid battery that stays in the car. It is too heavy to carry, and a Bienno type is on the wish list. A laptop and tablet is used only if I operate FT8, which is seldom and almost a last resort if I need to "save" an activation.

My Android Smartphone is used for posting and viewing spots on the POTA site, navigation, confirming grid square and elevation, photographs, and more. Especially in the larger parks, you may find areas with little or no cellular coverage.

Antennas include hamsticks for 20, 40, 6, and 2 meters which are ideal for rapid deployment, attached to the 3/8"x24" lift-gate mount. An SO239 lift-gate mount is available for the ATAS or similar antennas with a PL259 attachment.

The KD2BKD-inspired bike rack on the trailer hitch accommodates a 20 foot telescoping fiberglass pole used for the end-fed, or the 24-foot painter pole – which can support the 133-foot off-center fed dipole or twin hamsticks. I have learned NOT to drive very far with these installed!!!

A small table over the front passenger seat holds the equipment when I'm operating from the front seat; otherwise, I can work from outside the back of the car with the lift-gate opened.

My preference is to set up the station on a picnic table or bench and be completely separate from the vehicle. On my wish list is to get out on the trails and more into the park.

Logging is done in a spiral notebook and then transferred to my logging program for conversion to the ADIF file required by POTA.

Safety, creatures, and creature comfort

Always take proper precautions for COVID, and respect closed facilities and posted restrictions. Situational awareness is critical. Know where you are and pay attention to your surroundings.

Drive safe, especially at night. Dark, twisty roads seem to attract deer.

Don't overestimate your vehicle and underestimate the snow/ice/water/mud/etc. I had to get winched out recently. Fortunately I was within cell signal range and the rescue truck came pretty quickly.

And speaking of the other type of hunters, make sure you wear safety colors when you're in or near the woods. I was considering setting up at a site where the Appalachian Trail crossed a state park. It was not ideal since there were very low hanging power lines. Suddenly, two very heavily armed hunters in full camo, except for their orange hats, burst out of the trail. Needless to say that sealed the deal and I found another spot.

Some locations where you park may also be hazardous. There is a trailhead at a state park near me that is at the top of a mountain, on a sharp curve. The view from there is excellent, though cars come around that curve way too fast and close for my comfort; so I'm sure to park out of the line of fire. I hope.

Staying warm, fed, and hydrated are very important to your health and comfort. Be sure to plan for appropriate sanitary facilities. Since many buildings are closed, there are often portable restrooms available, though not always. A bear may do what it does in the woods. We don't necessarily have that … luxury.

Plan ahead.

And next ...

Not necessarily in order, here are some of my goals and plans for the future:

- Get off my … seat and spend more time on my feet
- Streamline my logging and submission process
- Better organize my expeditions for new parks
  (for me that means getting up and out earlier in the day ;-)
- Learn to maximize my equipment better, especially the filters
- Get more confident with CW to use that in the field
- Continue to improve my antennas (this should be #1 priority)
- Continue to improve my operating skills (practice, practice, practice)
- Activate more ATNOs and sites that have not been activated in a long time and in other modes (good for the hunters)
- Coordinate contest operations with POTA activations, with consideration that some contests limit or prohibit the spotting that POTA can provide
- Have fun!
- Encourage and help others … you can always reach me at stvrosman@gmail.com
  or find me out at a park somewhere

Resources and links

- www.parksontheair.com
- Pota.us
- https://www.facebook.com/groups/parksontheair
- Noel Pagan FLARC Kawfee Tawk Part 1 of 2
  https://www.youtube.com/watch?v=H3uSR340ka8
- Noel Pagan FLARC Kawfee Tawk Part 2 of 2
  https://www.youtube.com/watch?v=FoMFz5daSvQ
- Appalachian Trail Interactive Map
  https://nps.maps.arcgis.com/apps/webappviewer/index.html?id=6298c848ba2a490588b7f6d25453e4e0
- W3R (Washington Rochambeau Revolutionary) NHT Interactive Map https://w3r-us.org/trail-map/
- NY State Parks https://parks.ny.gov/
- NJ State Parks https://nj.gov/nj/things/parks/
- US National Park Service https://www.nps.gov/findapark/index.htm
- Joe Everhart N2CX Adventures https://www.cwtd.org/n2cx-npota/index.htm

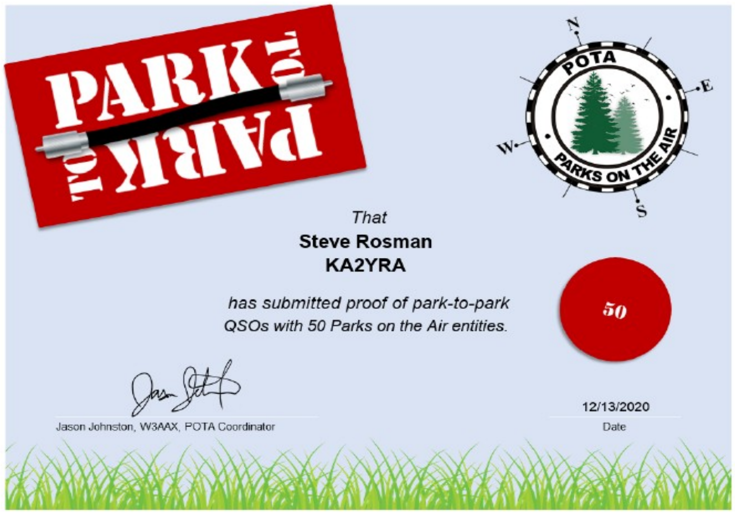
And some photos from the field

KA2YRA
Steve Rosman
62F Milford Lane, Suffern, NY 10901
Grid FN21wc Rockland County, NY

Four Corners Pond
BOATING BY PERMIT ONLY
APR. 1 - DEC. 31 or FIRST ICE
ICE SAFETY
GREEN FLAG INDICATES 6 ICE AVERAGE
RED FLAG INDICATES UNSAFE ICE KEEP OFF
OBSERVE SAFETY PRECAUTIONS
TODAY ICE IS

POTA

PARKS ON THE AIR



PARK TO PARK

POTA

PARKS ON THE AIR

That

Steve Rosman

KA2YRA

has submitted proof of park-to-park QSOs with 50 Parks on the Air entities.

50

Jason Johnston, W3AAX, POTA Coordinator

12/13/2020

Date

Another saga of the Hex Beam, cont'd.

shows that it is the wire from the 20-meter section of the hex beam. A trip to the roof with the intention of rolling up the end of the dangling wire, so it does not snag on the tower-to-roof guy wire, shows that the wire did not break -- the terminal lug on the end of the wire is intact.

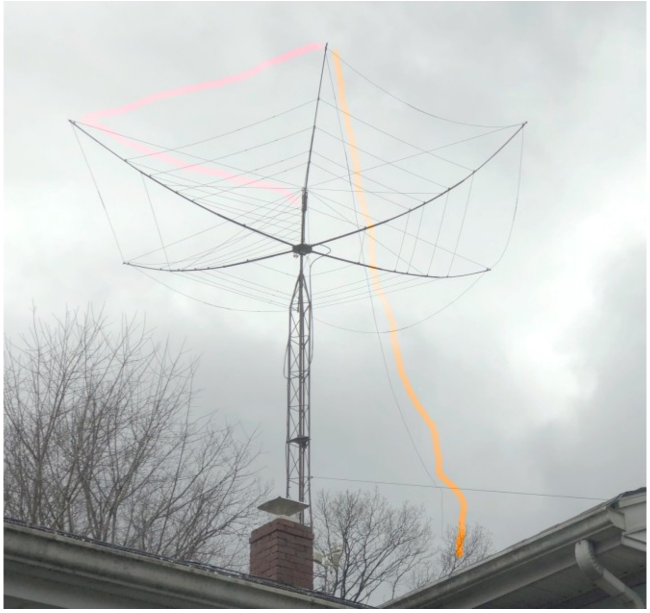
Apparently the lug came off the stud on the hex center mast, which means the nut and lock-washer had to have come loose... then untwisted the length of the stud, then fell off; and then perhaps the twisting of the hex in the storm wind 'wobbled' the terminal lug off the stud. How likely are all of those things to happen? Not very likely, I would think — but they did!

The only way to repair this will be to lower the tower (it is NOT a crank up, or a tilt over...) enough to reach the center of the hex beam, restring the wire and re-attach it to the lug.

Fortunately, the affect of the dangling wire on the hex operation seems to be negligible; 20 meter SWR went from 1:1 to 1:1.2 ... and signal reports on FT8 do not seem to have deteriorated very much.

So it seems "lots of worry, not too much damage" ...
All's well that ends well, as they say.

w2jc [**at deadline, we have more on the hex!**] ==>



Orange shows the dangling wire;
Red shows where it should be.

From The President, continued.

To the membership - a friendly reminder and request. Please, don't forget to fill out the survey sent by Ed WX2R. We NEED to know how you feel on certain topics which will help us see what we need as a club, and what direction to take during 2021 on certain activities. Remember, you are FLARC, and you have a voice. This is a tool that has been placed at your disposal so we may continue to work properly for the development of our club and also to do things that are relevant, fun, educational, and engaging with you and the membership.

For those that haven't yet, please take a few minutes and complete the survey. Help us help you in once again making FLARC a successful club.

Stay safe, stay healthy and
"I'll be seeing you on the radio."

73,
Nomar, NP4H
FLARC President

and more on the hexed hex ...

oy ... another chapter of the hexed hex saga today ... the 'dangling participle' on my hex beam, from the Christmas eve storm, (see Jan. issue of The Resonator) managed to get flipped around the tree branch it had to pass thru as the hex beam turned. It wasn't just snagged; it was flipped around, like what happens when you use the pop gun to shoot a line into the tree!

So up to the roof I clambered (is that word?) with a 30 ft aluminum pole, to reach across space from the roof to the tree and I did manage to un-flip the dangling wire! (and yes, I did strap myself to the tower for safety).

Now the dangling half of the 20 meter element is still dangling, but it's tied off with string to the tower so it's about 6 inches away from the tree branches when the hex turns in that area.

If it's not one thing, it's something else!

w2jc

Theoretics Demystified

A few short subjects before we get into the nitty gritty. When you cook food on a stovetop, an oven OR you cook using a microwave oven, what is the difference? Notwithstanding browning effects of a frypan or grill, there is none! You say WHAT! The difference is in the speed that the food molecules are vibrated by infrared waves somewhat slowly or are vibrated rather quickly by micro-waves! The difference is the wavelength — the faster or higher in frequency the shorter the wave length and the faster the molecules are pushed around — hence the faster the cooking time. What, you say, does this have to do with radio?

Well, microwave effects were discovered while experiments were going on with radar. Story has it that an engineer was adjusting a microwave dish that was transmitting a signal and while being in front of it, two things happened: he felt a bit warm while adjustments were being made to the transmitting beam and a candy bar in his shirt pocket melted! A serendipitous discovery indeed! This was all because of radio experimentation.

2020 was tough year and a historical one since it marked the anniversary of the first real broadcast, by Fessenden, which was a Christmas concert that predated Marconi's broadcast efforts, not to say that those were not important as well. Marconi was a businessman and used his business acumen to develop radio equipment and antennas so as to build up a radio business as well as bring to life his discoveries. Back in the day spark was king; then it was the Poulsen arc transmitter and those gave way to vacuum tube transmitters - even as primitive as they were at the time.

A lot of the real experimentation and work was done by the hams experimenting at the time. There was confusion on the airwaves at the time but the ARRL was born and hams finally had a voice in the shape of things. Since then things have been constantly changing, new modes, vastly improved equipment — most brought on by the transistor, integrated circuit, the microprocessor and the shrinking in size of the same so that now a transceiver can contain a million transistors or more.

Theoretics Demystified, continued

Digging into an old tube manual there were explanations of various tube circuits. One was avc or automatic volume control. Basically it was a circuit that took a rectified voltage from the audio circuit right after the rf section of a receiver and sent it back to provide more negative bias on the mixer or first if tube - thereby reducing the gain on the rf or if section and this along with a resistor/capacitor combination that kept the audio signal from influencing the avc voltage — that would have probably flattened the signal so there would be little or no audio.

This begs an explanation of how AM or amplitude modulation radio receivers work. Spark and arc aside, there were trf or tuned radio frequency receivers where you had one or several tuned circuits in series with their respective amplifying tubes and you had to tune by adjusting the tuned circuit(s) with a variable tuning capacitor (they called them condensers in the early days) and the resultant rf signal was detected by a diode or triode tube and further amplified by an audio tube or you used headphones.

Later sets used a superhetrodyne circuit which took the received signal, mixed it with a locally oscillated signal and the result was a sum of the two signals and a difference of the two. The lower difference signal was then tuned and amplified and then detected. The difference signal was constant in frequency because the local oscillator was designed to change with the desired tuned signal by virtue of using a ganged variable condenser.

The constant difference or IF — intermediate frequency signal was much easier to work with as the tuned circuits in the IF were always the same.

Then there is SSB or single sideband transmission and reception. Same as AM but the carrier and one of the sidebands is suppressed upon transmission so that the power needed to communicate is greatly reduced. Upon reception the local radio puts back a carrier and then detects it as usual. What's a sideband, you ask?

Continued on page 58.

Be “The Boss” For An Hour – Become A Net Control Operator for the W2NPT "Near And Far" Net!

What is the "Near and Far Net"? It's a get-together on-the-air to chat about stuff!

It takes place on Monday nights at 8pm (eastern local time) on the W2NPT repeater (145.47Mhz, 6khz negative shift, pl 167.9). You do NOT need to be able to hit the repeater to participate, heck you don't even need a radio (although you will need a call-sign).

You can connect to the net via ECHOLINK (on your computer or cell-phone), and you can even run the net as a net controller via Echolink. So, do not be held-back by any preconceived notions, we welcome everyone into the net and *if* you do wish to run the net, we can provide you with everything you'll need to comfortably perform that function.

So join us on Mondays at 8pm, and if you wish to sign up for Net-Control, for *any* Monday of 2020, contact:

KD2KLN@ARRL.NET

Theoretics Demystified, continued

It is what is left when you strip out the carrier and one of the sidebands. If you were to see a carrier with a 3 kiloHertz signal impressed upon it you would see the original carrier and a 3kHz signal above the original carrier and one below the original carrier. Single sideband is where the carrier and one of the side bands is stripped out before transmission and only one side band is transmitted out.

For example if you send out an unmodulated (plain carrier - just RF with no information impressed upon it) say at 100 kHz and add a 1 kHz signal and mix them, then you end up with the original 100 kHz plus 101 kHz and 99 kHz signals. In this way an AM broadcast radio always has its intermediate frequency at 455 khz so that the IF circuitry can be optimized to provide the best signal to the detector stage. This is how things have been done since the

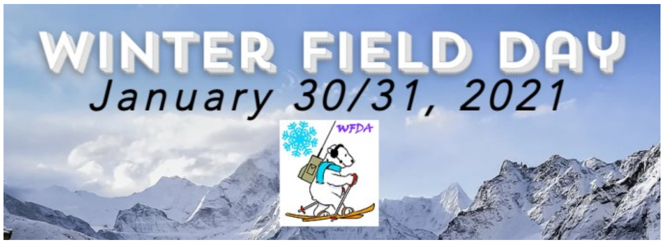
Winter Field Day Is January 30-31

Oh the weather outside is… well, it’s Winter.

But this month it will be time for
Winter Field Day.

Snow… ice… cold. Perfect conditions for WFD.

If you’re interested, talk to President Nomar and the Council and let’s see if we can get 2021 off to a better start than 2020.



Theoretics Demystified, continued

early days of radio, but things are a changing and have always been and always will be. After tubes came transistors then integrated circuits and now software defined radios with touch screen programming and now tiny computers that are programmed to act as radios.

Here we have had a very brief foray into the good ol’ days of tube equipment design but that design and it’s principles still hold true in today's equipment. That being said there is much interest in tube based ham and audio equipment. It is fun to look back at the old stuff as long as you realize that you need to try to keep up with present technology so as to keep from becoming a dinosaur and then left behind. Learn from the old and look to the new!

Lastly, another method of transmitting information is FM or frequency modulation. That is where the basic carrier or blank signal is moved back and forth in response to an inputted signal, usually audio. The advantages are freedom from static and a much improved audio fidelity. We have just scratched the surface of radio here, so keep on exploring and learning. Best wishes on 2021!

Fred Wawra, W2ABE. 73.

In A Nutshell

Well it is a new year and time to take advantage of the cold weather and huddle in your shack and TALK to other hams. Lately I have been having a blast being on 75 meters and making new friends and greeting old ones!

For me, hearing a familiar voice is satisfying and rewarding. It takes experience to work the bands and the only way to get it is to DO it. Most of us are waiting for spring and warmer weather when we can do antenna work again, I know I am.

There are many new things on the horizon including the hope of a new vigorous solar cycle! Ham radio is like being in a boat on a lake, same boat, same lake but every time is different. (That is due to propagation, meaning how the atmosphere reflects signals between stations) .

There are many aspects to the hobby, QRP transmitting — which means low power output to the antenna — morse code contacts — and several other digital modes as well.

Then there is bouncing signals off of the moon, DX or communicating over long distances. Besides this there are special event stations and things like Parks or Summits on the air.

Bottom line there is much to do and be involved in! So get involved! Fair Lawn Amateur Radio Club is a great Club to be involved in.

There are speakers with many interesting topics every month on zoom or hopefully soon in person and much more!

Do not forget the Near and Far net is on every Monday at eight pm local time on the W2NPT repeater and also via echolink!

Fred Wawra, W2ABE, 73.

Radio Monitoring SIG Update

continued

Guide (Winter 2020-2021) just out and available from Amazon. Some good background on stations and equipment.

Social media is also a good source for what is happening on the bands on a regular basis. I subscribe to the “Official SWL Channel” on Facebook which seems to be the most active group and features Gilles LeTourneau from Montreal who runs a twice weekly live SWL vodcast (video podcast).

I also follow the “Shortwave Radio Station Listening,” “Extreme Shortwave Listening” and the “WRTH” groups daily on Facebook as well.

What strikes me about those using social media to post about the hobby is that there is a heavy reliance on portable gear – inexpensive by amateur standards. The groups also seem younger in age and have a perfunctory knowledge about technical and propagation issues, with lots of sharing of knowledge for basic information.

What I will miss this year is my only in-person connection with fellow devotees — the annual SWLFest in Kulpsville, PA usually in February. A victim of Covid-19, it was a chance to see the same faces every year including N2SU and N2AAM. It was a rite of Winter and sadly missed.

So that is a little about my monitoring ritual. While it has changed over the years as broadcasters have come and mostly gone, it is still a hoot to turn the dials and see what is out there.

If you are interested in finding what is out there in the RF spectrum other than ham radio stations, join us in the Monitoring SIG by clicking the "Join Special Interest Groups" link in the left sidebar of the main club website http://FairLawnARC.org

We share lots of info about what's on the air, and what WAS on the air in the past.

January 2021 FLARC Business Meeting Minutes

prepared by **Tom McCabe N2AXX**

The meeting was called to order by President, Nomar Vizcarrondo, NP4H via Zoom video teleconference at 7:31 pm and concluded at 8:40 pm.

Pledge of Allegiance was recited at 7:32 pm

Secretary Tom N2AXX called attendance and a quorum was established:

President:	Nomar Vizcarrondo, NP4H
Vice President:	John Howard, W2JLH
Treasurer:	Bruce Kalogera, NJ2BK
Secretary:	Tom McCabe, N2AXX
Trustees (3):	Don Cassarini, K2PD Ed Efchak, WX2R Fred Wawra, W2ABE

Note:
~ 35 participants attended the Zoom video teleconference

December 2020 FLARC Annual Meeting Minutes were published in the December 2020 edition of **The Resonator.** A motion to accept the minutes as presented was accepted by "Skip" KD2BRV and Don Cassarini K2PD.

The treasurer's report was presented by Bruce NJ2BK, and the motion to accept the financial report was presented and accepted by Brian KD2KLN and seconded by Judith KC2TLM and accepted by the membership.

Reminder…
please remit your ***2021 FLARC Membership Dues*** to Treasurer Bruce Kalogera NJ2BK through his QRZ.com address.

PayPal was considered but it omits names and other information to confirm a member's payment.

A second payment application was considered and rejected due to cost. Mobile E-banking payments will continue to work as always.

Visitors: None

January 2021 FLARC Business Meeting, continued

Committee Reports:

President Nomar Vizcarrondo NP4H recognized all previous officers of FLARC for building the club into what it is as we begin 2021.

Technical Report: None

Publicity: Ed WX2R reminded the membership body to complete the 2021 FLARC Member Survey ***ASAP***. Feedback will be presented in February 2021. Check your Email for the 2021 survey…*new, improved, and faster to complete*.

Kawfee Tawk kicks off Jan.15, 2021 with Trans World Radio presentation by Lauren Libby.

Website: Jim W2JC reports our website, Kawfee Talk announcements, Groups,io and file sharing are all working well.

Social Media: Thom W2NZ reports 546 subscribers to the FLARC YouTube Channel, with an average watch time of 9m 40s. FLARC's ARRL CEO feature is being linked and viewed nationally. Stimulating, interesting topics are always welcome!

RACES/ARES: Dave KD2MOB said the FLARC ARES/RACES 2020 year-end report was filed to the Borough of Fairlawn OEM. Called for EMCOMM participation… currently only *5 regular participants* for both the FLARC ARES and RACES Nets. Training and support are available from Net Scripts to WinLink messaging and supported by regular drills. The Nov 14th exercise used WinLink to send and receive *simulated EMCOMM* messages with the American Red Cross.

Winter Field Day: John W2JLH reported that FLARC members will participate from home and maybe portable operation – following the Winter Field Day Association (WFDA) rules to be sent out. Fred, W2AAB's operation and contesting manual is available.

VE Sessions: Gene WO2W said **VEs are needed**…. indoor testing is on and registration for this month is full (10 examinees) for Jan. 16, 2021 at our new indoor location in Ridgewood, NJ – with thanks to Nomar NP4H.

Continued on next page.

January 2021 FLARC Business Meeting, continued

Old Business: Gene WO2W reported that FLARC extended their condolences to Jimmy Graff, Fairlawn Parks & Recreation Supervisor, due to the loss of his father.

Both the Senior Center and Recreation Center remain closed.

Kawfee Tawks and Special Interest Group ideas are in mind for winter-spring 2021.

Hamfest is "on" for April 24, 2021. Gene WO2W will meet with the Hamfest Committee soon and he is compiling a list of potential vendors and brands for the FLARC Hamfest.

Ed WX2R is working up an event flyer with Brad KM2C's XYL. Appreciation was extended to Brad and Erica.

Special Interest Groups (SIGs):

- **Monitoring:**
  Dave N2AAM highlights the TWR talk

- **DMR:** Bob KD2BKD — DMR Talk Group TG310015 traffic discussed and weekly DMR Net on Tuesday7pm.

  BrandMeister Official Talk Group for FLARC is pending. Support with DMR radios and "Hot Spotting" is available.

- **POTA:** Noel W2MSA — Group is quiet going into the colder weather. Steve KA2YRA is steaming ahead non-stop with POTA – SOTA activities.

  Steve is preparing POTA-SOTA presentation to share with the membership.

- **DX:** John W2JLH and Van W2DLT… watch for DX activity postings and *"…go get 'em…"* when interesting stations are heard and posted.

January 2021 FLARC Business Meeting, continued

New Business:

- **Special Interest Groups**…
  Jim W2JC reminded those who are not yet in the SIGs to see the Special Interest Groups link on the left side of the main web site page.

- **Health & Welfare:**
  Reminder to all… Stay safe and healthy

- **Pending Award:**
  Potential announcement in Feb. 2021

Motion to Close and Adjourn:

- Proposed by Thom W2NZ;
  seconded by Gene WO2W at 8:40 pm.

Respectfully submitted

Tom McCabe

N2AXX

2021 Dues Are Due

Dues for 2021 will be accepted by the club starting on December 4th with the 2020 Annual Meeting. There are no changes to dues ($25) for the upcoming year. Cutoff date is March 31, 2021.

Please makes checks payable to "Fair Lawn Amateur Radio Club" and send them to:

Bruce Kalogera NJ2BK
163 Meadow Lane
Secaucus, NJ 07094

Mail sent to the clubhouse will be delayed due to Covid restrictions.

See website for other membership options.